Global Burden of Disease 2000: Version 2 methods and results.

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1. Introduction

In 1993 the Harvard School of Public Health in collaboration with The World Bank and WHO assessed the Global Burden of Disease (GBD). As well as generating comprehensive and consistent set of estimates of mortality and morbidity by age, sex and region for the world for the first time *(1-7)*, the GBD study also introduced a new metric – the disability adjusted life year (DALY) – to quantify the burden of disease.

The DALY is a summary measure of population health that combines in a single indicator years of life lost from premature death and years of life lived with disabilities. One DALY can be thought of as one lost year of 'healthy' life and the burden of disease as a measurement of the gap between current health status and an ideal situation where everyone lives into old age free of disease and disability. In recent years, considerable international effort has been put into the development of summary measures of population health that combine information on mortality and non-fatal health outcomes into a single measure. International policy interest in such indicators is increasing *(8-10)*.

The World Health Organization is now undertaking a new assessment of the GBD for the year 2000 and subsequent years. The three goals articulated for the GBD 1990 *(6;11)* remain central:

(i) to decouple epidemiological assessment of the magnitude of health problems from advocacy by interest groups of particular health policies or interventions;

(ii) to include in international health policy debates information on non-fatal health outcomes along with information on mortality; and

(iii) to undertake the quantification of health problems in time-based units that can also be used in economic appraisal.

The specific objectives for GBD 2000 are similar to the original objectives: The specific objectives of GBD2000 are:

- to quantify the burden of premature mortality and disability by age, sex, and region for 135 major causes or groups of causes;
- to develop internally consistent estimates of the incidence, prevalence, duration, and case-fatality for over 500 sequelae resulting from the above causes;
- to describe and value the health states associated with these sequelae of diseases and injuries;
- to analyze the contribution to this burden of major physiological, behavioural, and social risk factors by age, sex and region (see below);
- to develop alternative projection scenarios of mortality and non-fatal health outcomes over the next 30 years, disaggregated by cause, age, sex and region.

It is important to include assessments of all causes of disease and injury burden in the GBD 2000. Otherwise, limitations in the evidence base for certain causes or regions translate to 'no burden' rather than the best achievable uncertain estimates of burden, and health decision makers would be presented with a misleading picture. All epidemiological data relating to population are 'estimates' of varying degrees of precision or uncertainty. The GBD 2000 seeks to use all available relevant data, to maximise the use of high quality population-based data, and, even for regions and causes where data are sparse, to use the available evidence and the best available methods to make inferences. Where the evidence is uncertain or incomplete, the GBD 2000 attempts to make the best possible inferences based on the

knowledge base that is available, and to assess the uncertainty in the resulting estimates *(12)*. Internal consistency and transparency of methods and assumptions are crucial. To this end, it is aimed to progressively document the data sources, disease models, methods and assumptions used in the GBD 2000 and to release these as drafts for discussion over the next two years.

A number of commentators have incorrectly equated the GBD with one summary measure of population health used extensively in the presentation of the GBD results by cause, namely DALYs *(13;14)* Such critiques miss the point that the primary activity of the GBD is the development of comparable, valid and reliable epidemiological information on a wide range of diseases, injuries and risk factors. As such, the GBD 2000 is a crucial underpinning for a wide variety of WHO programs and for evidence to support global health policy.

In addition, WHO member States are increasingly requesting technical assistance and support to undertake country-level burden of disease measurement. Over 30 countries are in various stages of undertaking these assessments and WHO support to these efforts not only ensures better data for planning but also enables further development and testing of tools to facilitate burden of disease assessments. This iterative process builds a partnership between WHO and Member States, laying the groundwork for tackling the bigger challenge of integrating burden of disease data into country-level programming and health system performance assessment. In addition, this partnership contributes towards the ongoing updating of the 1990 estimates of the global and regional burden of disease to estimates for the year 2000 and following years.

The Epidemiology and Burden of Disease team (EBD) within the Global Program on Evidence for Health Policy (EIP/GPE) is responsible for coordinating the GBD 2000. Reviews of epidemiological information and assessments of global epidemiological patterns are being carried out in collaboration and consultation with relevant programs at WHO and with experts and expert groups outside WHO. Funding support is being provided under a grant from the US National Institutes on Aging. As suggested by the objectives outlined above, a major focus of the GBD 2000 project is to work with WHO disease and injury programs to improve the comparability, validity and reliability of the descriptive epidemiology for mortality and non-fatal health outcomes attributed to various diseases, injuries and risk factors. The creation and maintenance of databases on the descriptive epidemiology of major conditions is probably the most formidable, time consuming and resource-intensive task of the GBD 2000 enterprise. WHO programs collaborate closely with EIP in this task.

Version 1 estimates of the Global Burden of Disease 2000 were reported in the World Health Report 2001 *(15)*. Data sources, methods and summary results were documented in a GPE Discussion Paper *(16)*. Life expectancies for the year 2000 for many Member States have been revised from those published in the World Health Report 2001 to take into account more recently available mortality data. In addition, cause of death distributions and burden of disease estimates of prevalences for specific diseases, injuries and their sequelae have been updated for many of the cause categories included in the GBD 2000 study. These revisions constitute Version 2 of the GBD 2000 estimates for the year 2000 and this version has been used as the basis of the estimates of global burden of disease for the year 2001 published in Annex Tables 2 and 3 of the World Health Report 2002 *(17)*. Version 2 of the GBD 2000 also underpins the comparative risk assessments for 25 major risk factors (see Table 1) and the analyses of the cost-effectiveness of interventions for these risks which are the main topic of the World Health Report 2002.

For 25 selected risk factors, between 1999 and 2002, expert working groups conducted comprehensive review of published literature as well as other sources (government reports, international databases, etc.) to obtain data on the prevalence of risk factor exposure and

hazard size (relative risk or absolute hazard size when appropriate) for 14 sub-regions of the world . Population attributable fractions were estimated using the population impact fraction relationship and applied to the Version 2 mortality and burden of disease estimates from the GBD 2000 described here *(18;19)*. The CRA project included a selected group of risk factors, listed in Table 1. The criteria for selection of risk factors included were: likely to be among the global or regional leading causes of disease burden; not too specific (e.g. every one of the thousands of occupational chemicals) or too broad (e.g. environment or food); high likelihood of causality based on the collectivity of scientific knowledge; reasonably complete data on exposure and risk levels or methods for extrapolation when needed; potentially modifiable. Full details of the CRA analyses for these risk factors will be available in a book to be published in the first half of 2003 *(20)***.** A summary of the CRA methods is available on the WHO website.

Table 1. Risk factors included in the Comparative Risk Assessment component of the GBD2000

Childhood and maternal undernutrition	**Environmental risks**
Underweight	Unsafe water, sanitation, and hygiene
Iron deficiency	Urban outdoor air pollution
Vitamin A deficiency	Indoor smoke from solid fuels
Zinc deficiency	Lead
Other nutrition-related risk factors and physical activity	Global climate change
High blood pressure	**Occupational risks**
High cholesterol	Occupational risk factors for injuries
High body mass index (BMI)	Occupational carcinogens
Low fruit and vegetable intake	Occupational airborne particulates
Physical inactivity	Occupational ergonomic stressors
Sexual and reproductive health	Occupational noise
Unsafe sex	**Other selected risks**
Lack of contraception	Unsafe health care injections
Addictive substances	Childhood sexual abuse
Tobacco	
Alcohol	
Illicit drugs	

This discussion paper gives an overview of Version 2 results for 2000 from the GBD 2000. It also summarises the analysis categories, methods and data sources for the GBD 2000 Version 2 results. Detailed documentation of epidemiological assessments and burden of disease analyses for individual causes are being made available progressively on the WHO website.

2. GBD2000 study categories

2.1 Age groups

The 5 age groups used in the GBD 1990 for each sex have been expanded to 8 age groups as follows:

0-4, 5-14, 15-29, 30-44, 45-59, 60-69, 70-79, 80+ years

2.2 Regions

For geographic disaggregation of the global burden of disease, the six WHO regions of the world have been further divided into 14 subregions, based on levels of child (under five years) and adult (15-59 years) mortality for WHO Member States. The classification of WHO Member States into the mortality strata were carried out using population estimates for 1999 (UN Population Division 1998) and estimates of ${}_5q_0$ and ${}_{45}q_{15}$ based on WHO analyses of mortality rates for 1999 *(21)*.

Five mortality strata were defined in terms of quintiles of the distribution of ${}_5q_0$ and ${}_{45}q_{15}$ (both sexes combined) as shown in Table 2. Adult mortality ${}_{45}q_{15}$ was regressed on ${}_5q_0$ and the regression line used to divide countries with high child mortality into high adult mortality (stratum D) and very high adult mortality (stratum E). Stratum E includes the countries in sub-Saharan Africa where HIV/AIDS has had a very substantial impact.

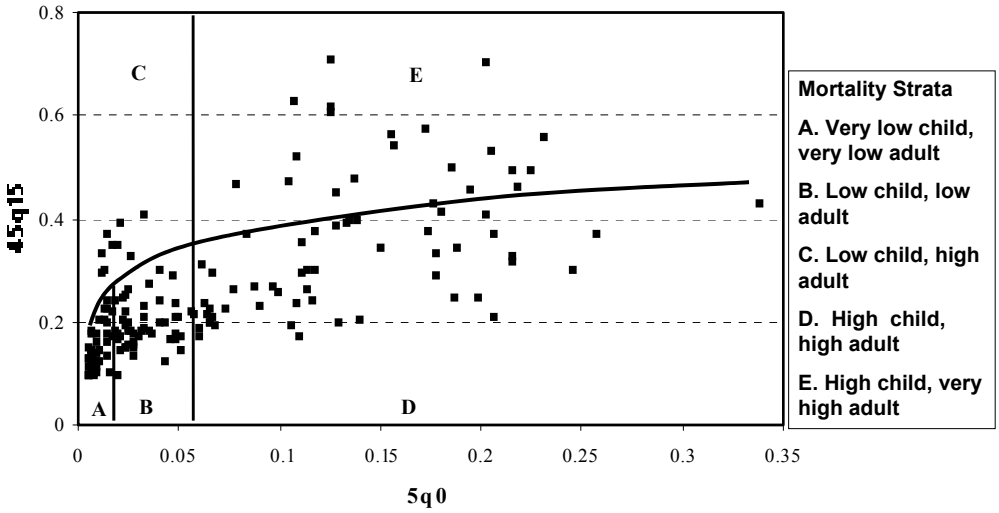
Table 2. Definitions of mortality strata used to define WHO subregions for the GBD2000

Mortality stratum	Child mortality	Definition	Adult mortality
A	Very low child mortality (1st quintile of ${}_5q_0$)	${}_5q_0 < 0.0122$	Low adult mortality
B	Low child mortality (2nd and 3rd quintile of ${}_5q_0$)	$0.0122 < {}_5q_0 < 0.062$	Low adult mortality
C	Low child mortality (2nd and 3rd quintile of ${}_5q_0$)	$0.0122 < {}_5q_0 < 0.062$	High adult mortality
D	High child mortality (4th and 5th quintile of ${}_5q_0$)	$0.062 < {}_5q_0$	High adult mortality
E	High child mortality (4th and 5th quintile of ${}_5q_0$)	$0.062 < {}_5q_0$	Very high adult mortality

When these mortality strata are applied to the six WHO regions, they produce 14 mortality subregions (Figure 1). These are listed in Annex Table 1, together with the WHO Member States in each subregion.

For the purposes of burden of disease epidemiological analyses, 2 of these regions have been further subdivided: EURO B into EURO B1 and EURO B2 – the latter including the central Asian states; and WPRO B into WPRO B1 (mainly China), WPRO B2 (South east Asian countries) and WPRO B3 (Pacific Islands). Additionally, some Member States have been reclassified into subregions with similar epidemiological/geographic/ethnic patterns in order to maximise the epidemiological homogeneity of the subregions for the purposes of epidemiological analysis. The resulting 17 epidemiological subregions are listed in Annex Table 2. These subregions are used for analysis in the GBD 2000, but the resulting estimates are mapped back to the 14 subregions defined in Annex Table 1 for all reporting purposes.

Figure 1. Global Mortality Strata for GBD 2000 Regions



2.3 Cause categories

Annex Table 3 lists the cause categories used in the GBD 2000 Version 2 and their definitions in terms of ICD-9 and ICD-10 codes *(22;23)*. The tree structure used for classification of disease and injury causes is similar to that used for the GBD 1990 but includes some revisions and additional cause categories. The cause list has four levels of disaggregation and includes 135 specific diseases and injuries. At the first level, overall mortality is divided into thee broad groups of causes: Group I, consisting of communicable diseases, maternal causes, conditions arising in the perinatal period and nutritional deficiencies, Group II encompassing the non-communicable diseases; and Group III, comprising intentional and unintentional injuries.

Deaths and health states are categorically attributed to one underlying cause using the rules and conventions of the International Classification of Diseases. In some cases, the ICD rules are ambiguous; in these cases, the GBD 2000 follows the conventions used in the GBD 1990 (*Table 3.3 in (2)*).

Annex Table 4 lists the sequelae analysed for each cause category and provides relevant case definitions.

In some cases, diseases may act as risk factors for other diseases, and the total burden attributable to a disease may be greater than that assigned under the ICD conventions. It is intended to separately estimate the total attributable burden for the following causes:

Hepatitis	Include attributable burden of liver cancer and renal failure
Diabetes	Include attributable burden of cardiovascular disease and renal failure
Depression	Include attributable burden of suicide
Hearing loss	Total burden of hearing loss sequelae for all causes
Vision disorders	Total burden of vision disorders resulting from all causes
Osteoporosis	Attributable burden of falls/fractures

3. Methods

3.1 Population

The GBD 2000 uses the latest population estimates for WHO Member States prepared by the UN Population Division (see Annex Table 7). Note that these estimates refer to de facto population (eg. including guest workers and refugees) rather than de jure population (citizens and, in some Member States, permanent residents).

3.2 All cause mortality

Introduction

The first analytical step in the GBD 2000 study is to estimate the age-specific death rates, by sex, for the GBD subregions for the year 2000. The importance of this step cannot be overemphasized. The number of deaths, by age and sex, provides an essential "envelope" which constrains individual disease and injury estimates of deaths. Competing claims for the magnitude of deaths from various causes must be reconciled within this envelope. The sum of deaths from all specific causes for any sex-age group must sum to the total number of deaths for that age-sex group estimated via the data sources and methods described below. From the estimated age-specific mortality rates, life tables for the populations of the subregions can be derived using standard methods.

Version 1 estimates of deaths by age and sex for the year 2000 were published in the WHR 2001 and in more detail in the Annex Tables to Discussion Paper 36 *(24)*. Additionally, life tables for the year 2000 for 191 WHO Member States were published in a WHO book *(25)*. Since publication of the WHR 2001, more recent data from vital registration systems and from surveys has become available, and life tables for the year 2000 have been revised for many of the WHO Member States. The sources of mortality data for the Version 2 estimates are summarized in Table 3.

Table 3. Number of Member States with recent deaths coverage by WHO subregion for the GBD2000

Subregion	Complete vital statistics*	Incomplete vital statistics	Sample surveillance systems	Surveys and indirect methods	No recent data	Total Member States
Afr D	2	0	0	21	3	26
Afr E	0	2	1	14	3	20
Amr A	3	0	0	0	0	3
Amr B	17	8	0	1	0	26
Amr D	0	4	0	2	0	6
Emr B	4	4	0	5	0	13
Emr D	0	2	0	5	2	9
Eur A	26	0	0	0	0	26
Eur B	7	9	0	0	0	16
Eur C	8	1	0	0	0	9
Sear B	1	1	0	1	0	3
Sear D	0	1	2	3	1	7
Wpr A	4	1	0	0	0	5
Wpr B	3	12	1	6	0	22
Total	**75**	**45**	**4**	**58**	**9**	**191**

*coverage of 90%+

Complete or incomplete vital registration data together with sample registration systems cover 72% of global mortality. Survey data and indirect demographic techniques provide information on levels of child and adult mortality for the remaining 28% of estimated global mortality.

Methodology

These data sources were used as follows to estimate global mortality. For Member States with vital registration data, demographic techniques[1] were first applied, as appropriate, to assess the level of completeness of the recorded mortality data for adults. If the data coverage estimate were high enough to be meaningful, death rates above age 5 were then adjusted accordingly. For countries without exploitable vital registration data, other sources of adult mortality such as survey and census were used to estimate the level of adult mortality as measured by ${}_{45}q_{15}$. For under-five mortality, again, all available survey, census and vital registration data were assessed, adjusted and averaged to estimate the probable trend in child mortality (${}_5q_0$) over the past few decades. This trend was projected to estimate child mortality levels in 2000.

Depending on the data availability for one country to assess the child and adult mortality, different procedures were used to estimate the 2000 life table. The Annex Table 5 at the end gives a country specific data source and method used.

Member States with 2000 vital registration data

For 48 Member States, life tables were constructed using vital registration data for 2000. Adult and child mortality were adjusted when necessary.

Member States with a time series of life table from vital registration data

For 43 countries, the vital registration systems, including sample vital registration system, were good enough to provide a time series of annual life tables (adjusted if the registration level is incomplete) between 1985 and 1999. For small countries with population size below 500 000, moving averages were used to smooth the time series. Life table parameters, survivors at age 5 (l_5) and at age 60 (l_{60}) were projected using a weighted regression model giving more or less weight to recent data, depending on availability. In the example Figure 2, the projections for France in 2000, denoted by larger symbols, show a smooth trend with the observed values.

Projected values of l_5 and l_{60} were then applied to a modified logit life table model *(26)*, using the most recent national data as the standard, to predict the full life table in 2000. The modified Brass logit system is an extension of the ordinary Brass2-parameter system to include two additional age-specific correction factors (called γ and θ) which correct for the increasing non-linearity of logits with increasing distance from the standard. Figure 3 shows the trend in life expectancy at birth and its projection for France in 2000.

For five additional Member States, time series data were not available, only the most recent year, and regional mortality trends were used to project life table parameters forward to 2000.

[1] The methods for assessing completeness of reporting that were used are (i) Bennet Horiuchi method, (ii) the Simple Growth Balance method, (iii) the generalized Growth Balance method and (iv) Preston-Coale method.

Fig. 2 Survivors at age 5 (l_5) and at age 60 (l_{60}), trend and projection, France, by sex, 1985-2000

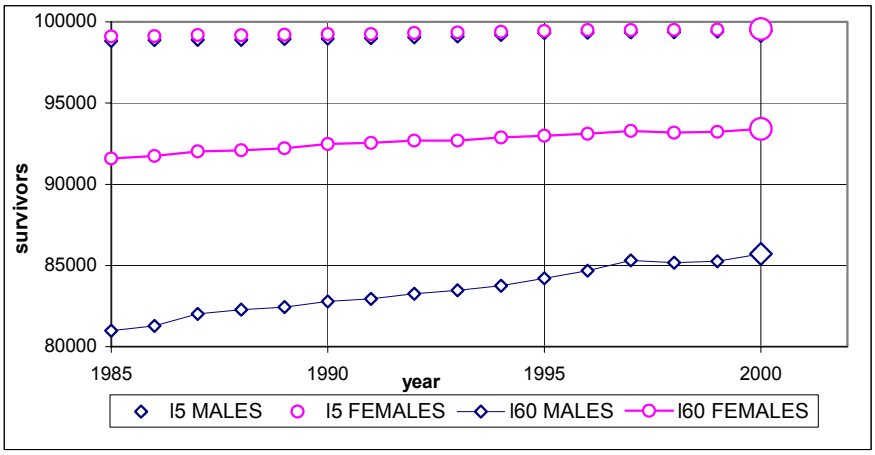
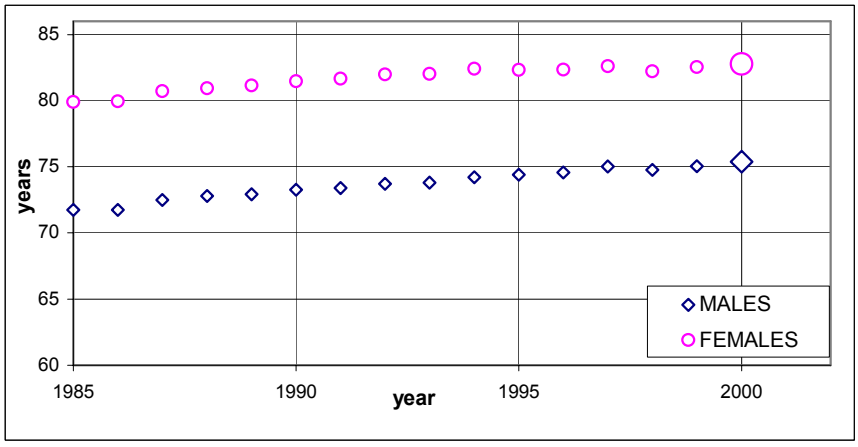


Fig. 3 Life expectancy at births, trend and projection, France, by sex, 1985-2000



Member States with incomplete vital registration data

In the 30% of countries with incomplete or sample vital registration systems, demographic techniques were used to estimate the level of completeness of death recording and to adjust the data accordingly. These adjusted levels of child mortality ($_5q_0$) and adult mortality ($_{45}q_{15}$), excluding HIV/AIDS deaths where necessary, were then used to predict levels of two life table parameters (l_5, l_{60}) in 2000 assuming a constant pace of mortality change to what was observed in the 1990s. These predicted values of l_5 and l_{60} in 2001 were then applied to a modified logit life table model *(26)*, using a global standard, to predict the full life table in 2001, and HIV/AIDS deaths added to total mortality rates where necessary.

Member States with data on adult mortality

In the case of 44 countries without a time series of life table nor good vital registration for 2000, all available mortality data source were used to assess the levels of child mortality ($_5q_0$) and adult mortality ($_{45}q_{15}$) in order to predict the levels of two life table parameters (l_5, l_{60}) in 2000 assuming a constant pace of mortality change based on what was observed in the 1990s. These predicted values of l_5 and l_{60} in 2000 were then applied to a modified logit life table model, using a global standard, to derive the full life table in 2000. Note that the database that

forms the input for the modified logit life table model does not includes data from developing countries with high HIV/AIDS epidemics. Therefore for those countries, to apply the modified logit model, the predicted values of l_5 and l_{60} were assessed free of HIV/AIDS mortality. Then deaths from HIV/AIDS were added to total mortality rates of the projected life table.

Member States without data on adult mortality

Finally, for the 53 countries lacking data on adult mortality, based on the measured or projected level of child mortality in 2000, the most likely corresponding level of adult mortality (excluding HIV/AIDS deaths where necessary) was estimated, along with uncertainty ranges. Adult mortality levels were based on regression models of child versus adult mortality as observed in a set of almost 2000 life tables judged to be of good quality. These estimated levels of child and adult mortality were then applied to a modified logit life table model *(26)*, using a global standard, to estimate the full life table in 2000, and HIV/AIDS deaths added to total mortality rates where necessary *(25)*.

Special cases

Finally for a few Member States, specific methods were used to obtain the 2000 life table. For Andorra and Monaco, age-specific death rates were estimated from data for neighbouring regions of Spain and France respectively. Death rates for the United Arab Emirate for 2000 were estimated from the 1999 national life table. Rates were first smoothed to better reflect the true pattern of risk increase with age, and extended beyond age 80 using the Coale-Guo method.

For China and India, separate mortality recording systems for rural and urban areas were used to estimate all cause death rates by age and sex for rural and urban areas, and these were added to obtain national all cause deaths rates in order to construct a national life table. The data sources and methods for India are described in the following Section 3.2 in the section on *Individual country strategies*.

China

Mortality data for China is available from two sources - the sample Vital Registration system (VR) monitored by the Ministry of Health and the Disease Surveillance Point System (DSP), monitored by the Chinese Center for Disease Control. The following table gives a brief summary of the design and operational characteristics of these systems.

Table 4. Characteristics of the Chinese sample vital registration system (VR) and the Disease Surveillance Point System (DSP).

Characteristic	VR	DSP
Population covered	120 million	11 million
Sample sites	137	145
Representative	Not nationally representative	representative
Socio economic strata	3 urban, three rural	1 urban, four rural
Annual number of deaths	700,000	50,000
COD assignment	Med cert / lay reporting	Med certificate\verbal autopsy
Cause specific codes	103 cause groups	152 cause groups
Prop of ill defined	5 %	4 %

The DSP sample sites are classified by the Chinese Ministry of Health into an urban stratum and four socioeconomic strata for rural areas, based on an analysis of nine indicators for rural counties from the 1990 national census. These indicators include birth and mortality rates, dependency ratios, literacy rates, and proportions of agricultural/industrial occupations in the overall workforce. The VR sample sites are classified into one urban and three rural socioeconomic strata. As the DSP sample sites are considered nationally representative, the fraction of the national population in each socioeconomic strata was assumed to follow the same population distribution as the DSP sites (Table 5)

Table 5. Population distribution by socioeconomic stratum, China 2000.

Urban	*Rural 1*	*Rural 2*	*Rural 3*	*Rural 4*
31 %	18 %	27%	20 %	4 %

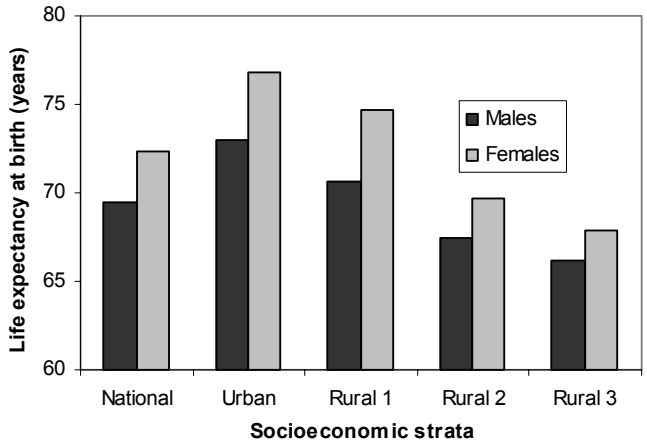
Data from the VR for the year 2000, and a three year average for the DSP from 1997 – 1999, were separately appraised for their usability in estimating strata-specific all-cause mortality for China. Based on this analysis, we chose to use the age specific death rates from the VR for each stratum, after correcting for under registration (15 %). We used the resultant levels of child and adult mortality in a process similar to that used for Member states with incomplete VR, to predict l_5, l_{60}, and the full life table for each stratum.

For the national life table , we used a weighted average of the levels of adult mortality in each stratum (using the weights shown in Table 5), and a projected child mortality level for 2000, based on a trend analyses of child mortality levels from registration systems, surveys, and censuses over the past several decades. These levels of child and adult mortality were used as inputs in the modified logit life table model to predict the full national life table for China for 2000. The resultant estimates of child and adult mortality are shown in Table 6. Life expectancies at birth by stratum, and for China as a whole, are also shown in Table 6 and Figure 4.

Table 6. Life expectancies, child mortality ($_5q_0$) and adult mortality ($_{45}q_{15}$) by socio economic strata - China 2000

	National	Urban	Rural 1	Rural 2	Rural 3
e_0					
Males	69.5	73.0	70.6	67.4	66.2
Females	72.3	76.8	74.6	69.7	67.8
$_5q_0$					
Males	0.038	0.027	0.035	0.045	0.050
Females	0.044	0.025	0.035	0.055	0.068
$_{45}q_{15}$					
Males	0.158	0.113	0.142	0.188	0.207
Females	0.107	0.067	0.083	0.137	0.151

Figure 4. Life expectancies at birth by socio economic strata - China 2000



War mortality estimates

Deaths due to war in the year 2000 can not generally be projected from time series mortality data for a country. Apart from the fact that wars are generally unpredictable and generally limited to a specific time period, vital registration systems often break down in periods of war. For these reasons, war deaths were excluded from time series for affected countries in projecting the life table "without war" for the year 2000. Separate estimates of deaths due to war in 2000 were then added to the life table mortality estimates (see below).

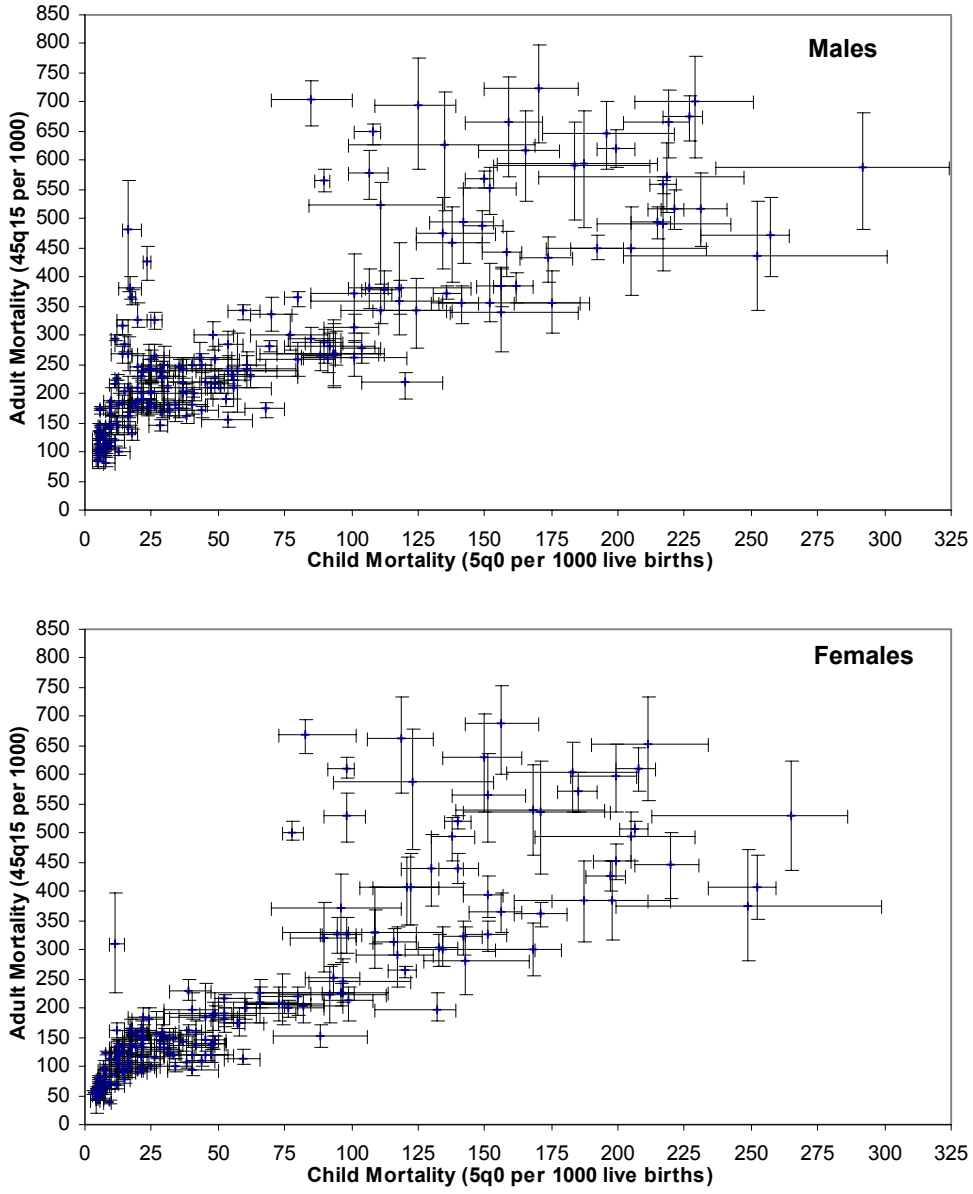
Results

Figure 5 plots adult (${}_{45}q_{15}$) versus child (${}_{5}q_{0}$) mortality for males and females by country showing, for example, that some countries with low levels of child mortality have much higher than expected levels of adult male mortality. The bars show the estimated 95% uncertainty intervals for adult and child mortality *(27)*.Annex Tables 6 and 7 summarize all cause mortality estimates for Version 2 of the GBD 2000.

3.2 Cause distribution of deaths

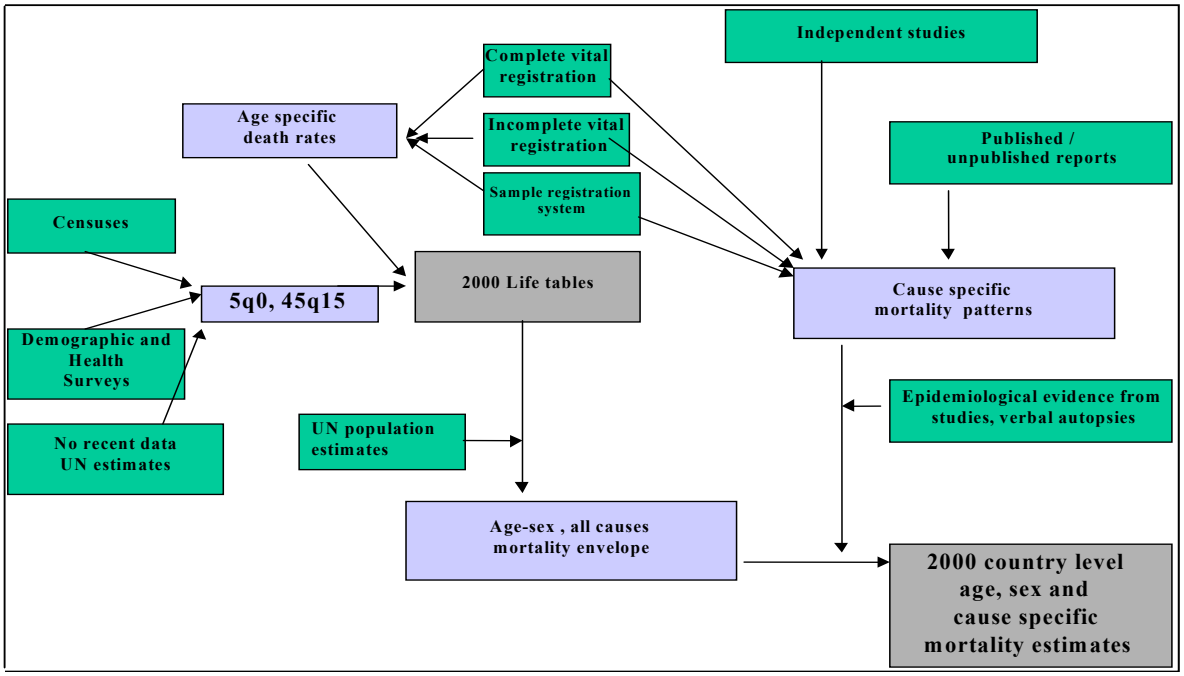
The World Health Organization contacts Member states directly on a routine basis to obtain their latest data on cause-of-death from their vital registration sources. In the absence of complete and accurate vital registration system, countries are requested to submit data from other reliable sources as well. Those data submitted by Member states become part of WHO's unique historical data base on causes of death which contains data as far back as 1950. Computerization of data at country level and electronic transmission to WHO have considerably improved the timeliness of information received.

Figure 5. Adult mortality versus child mortality for 191 WHO Member States, 2000 Version 2.



In 2001, 112 countries reported data which capture about 18.6 millions deaths representing one third of all deaths occurring in the world. For Version 2 estimates of global mortality by cause, intensive efforts have been made in obtaining vital registration data and other sources of data particularly in the WHO African, Eastern Mediterranean, South-east Asia and Western Pacific regions. In addition, information from sample registration systems, population laboratories and epidemiological analyses of specific conditions have been used to improve estimates of the cause of death patterns. Figure 6 provides a general overview of the process used to estimate deaths by cause for 191 Member States.

Figure 6: Overview of process in estimating causes of death



Comparability of cause of death data has been made possible worldwide through the development and revisions of the International Statistical Classification of Diseases and Related Health Problems (ICD). The ICD10th revision was adopted in 1990 by the WHA and came into effect as from 1993 *(23)*. The number of countries submitting their underlying causes of death data to WHO using ICD10th revision has increased from 4 in 1995 to 64 in 2001. There are still around 50 countries reporting data using the 9th revision of ICD and only one country using the 8th revision.

Several new features and changes from ICD9 to ICD10 have great impact on the interpretation of the statistical data. The implications of these changes in ICD10 are taken into account when making trend comparisons and estimations for causes of death. ICD10 is more detailed with about 10 000 conditions for classifying causes of death compared to around 5,100 in ICD9. The rules for selecting the underlying cause of death have been re-evaluated and sometimes changed. For example pneumonia is considered under ICD10 as a consequence of a much wider range of conditions and therefore would be less likely to be selected as the underlying cause.

Modification in the death certificate with the inclusion of an additional line in Part 1 of the certificate as recommended by WHO may also have had an impact on the selection of the underlying cause of death *(28)*. In the United States, the extent of the discontinuities from the change in ICD is measured using "comparability ratios," which result from double-coding the national mortality file, once by the old revision (ICD-9), and again by the new revision (ICD-10), and expressing the results of the comparison as a ratio of deaths for a particular cause classified by ICD-10 divided by the number of deaths for that same cause classified by ICD-9 *(29)*.

The cause categories used for the Global Burden of Disease 2000 are defined in Annex Table 3 and follow the principles of ICD that each death is categorically attributed to one underlying cause. With the more detailed level of information provided by most countries

using the ICD9 four digit and ICD10 four character codes, the complete tabulation into each GBD category/condition is facilitated without having to estimate mortality due to some causes. In the case of some very few countries still reporting data in condensed ICD9 Basic Tabulation List (BTL), algorithms based on data from countries with more detailed coding were applied to estimate deaths due to asthma as there is no BTL code for asthma. China and some of the newly independent states of the former USSR still use some special condensed ICD9 cause of death classification which were then mapped to the GBD cause list. Missing values for some GBD conditions were estimated with the use of algorithms. Similarly algorithms were also applied for countries reporting data in the condensed ICD10 Mortality tabulation list 1.

The process of coding underlying causes of death involves some extent of misattribution or miscoding even in countries where causes are assigned by medically qualified staff. Main reasons are incorrect or systematic biases in diagnosis, incorrect or incomplete death certificates and misinterpretation of ICD rules for selection of the underlying cause. Special attention has been paid to problems of misattribution or miscoding of causes of death in cardiovascular diseases, cancer, injuries and general ill-defined categories. A correction algorithm for reclassifying ill-defined cardiovascular codes has been developed *(30)*. Cancer mortality by site has been evaluated using both vital registration data and population based cancer incidence registries. The latter have been analysed using a complete age, period cohort model of cancer survival in each region *(31-33)*.

Cause of death for countries with complete vital registration data

As a general rule vital registration system with high level of coverage and suitably corrected for misattribution or miscoding as described previously were used to estimate the cause of death pattern. Historical data from 1980 available currently for 89 countries with vital registration serve as a basis for projecting trends and validating projections. When estimating deaths for very small countries, an average of the three last years of data from the vital registration were used to avoid spurious trends.

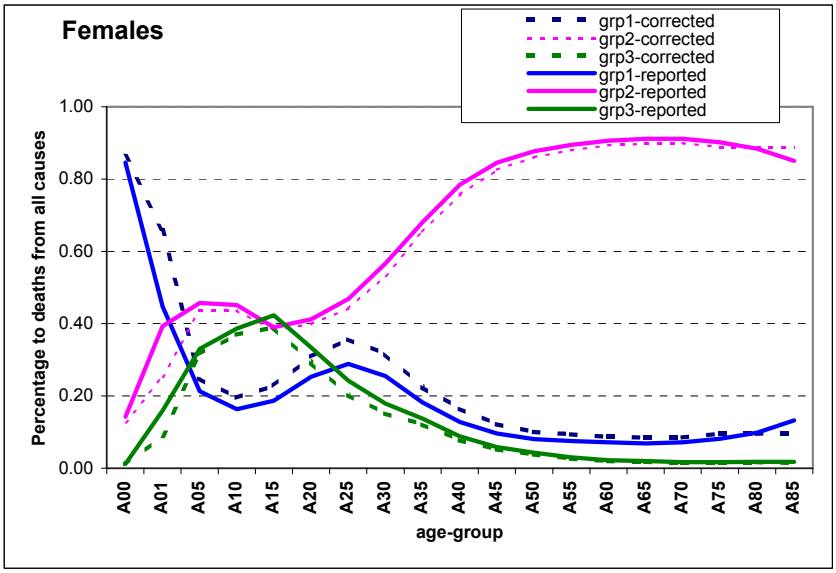
Deaths resulting from war operations are not systematically included in the causes of death data from vital registration system. For example, in the United States deaths resulting from war operations are recorded by the Ministry of Defence for security reasons and are therefore not included in the causes of death data from the vital registration system. Deaths due to AIDS and drug use are undercounted in some country vital registration data partly because of miscoding. Adjustments for deaths due to war operations, AIDS and drug use were made using best available estimates as described below.

Cause of death for countries with incomplete vital registration data

Cause of death data have been carefully analysed to take into account incomplete coverage of vital registration in countries and the likely differences in cause of death patterns that would be expected in the uncovered and often poorer sub-populations. Techniques to undertake this analysis have been developed based on the global burden of disease study and further refined using a much more extensive database and more robust modelling techniques. To extend cause of death estimates to the population that is not covered by the vital registration system, the Lorenz curve method described elsewhere *(34)* is first used to determine the total mortality rate in the non-registration areas. Using new compositional models for causes of death *(35)*, the predicted distribution of deaths in non-registration areas across Groups I, II and III is estimated for each age-sex group, accounting for the different mortality levels outside registration areas, while at the same time incorporating local deviation from the average relationship between all-cause mortality levels and cause-of-death patterns inferred from the vital registration data. This method was applied to 38 countries. The recorded cause

of death in the incomplete registration data are then used as a basis for estimating the distribution of specific causes within each broad group (I, II, III). Supplementary information from epidemiological studies and WHO technical Programmes on specific diseases were also taken into account when making final estimates (see below).

Figure 7 : Corrected levels of Group I, II and III from the causes of death models for a country with data capturing 83% of all deaths.



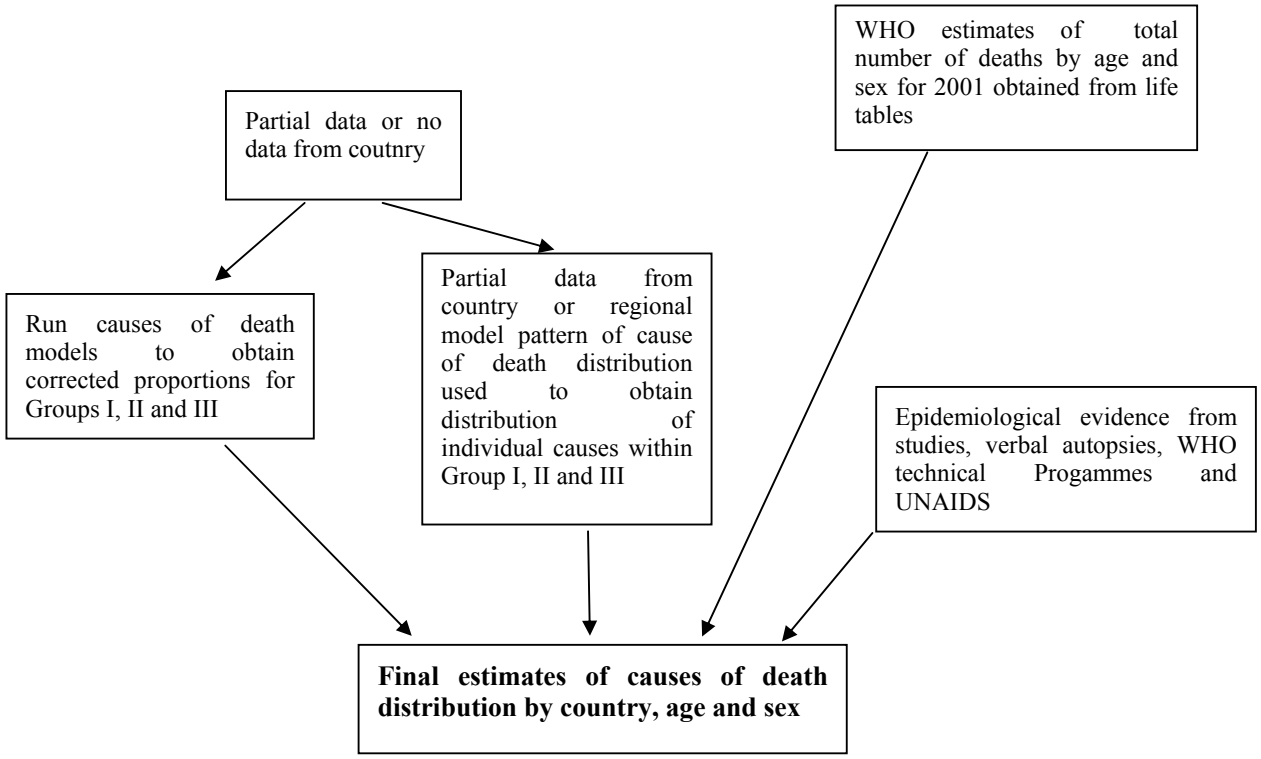
Cause of death for countries without vital registration data

For countries where no vital registration data or sample registration exist, causes of death models are first used to estimate the maximum likelihood distribution across Groups1, II and III based on estimated total mortality rates and income *(35)*.

A regional model pattern of specific causes of death was then constructed from vital registration data from neighbouring countries with similar pattern of mortality levels and income in the region and adjusted on the basis of epidemiological evidence from registries, verbal autopsy studies, disease surveillance systems, and analyses from WHO technical Programmes.

For the purpose of estimating causes of death, the six WHO regions of the world have been further divided into 14 subregions, as described in Section 2 above. In the case of WHO African region where good vital registration data is existent for only 3 countries, a regional model pattern of specific causes of deaths was based on vital registration data from urban and rural South Africa. In Emro, a similar pattern was built for the Gulf States based on four latest years of data from Bahrain and Kuwait, the only two countries for which we have data from vital registration system. For EmrB and EmrD, regional models were based on weighted death rates using the Iranian and Egyptian vital registration data. The weights used were determined by the income level of the individual countries and overall mortality death rates. In WprB Pacific islands a regional pattern was based on data from data available from reporting islands. All these regional model patterns of specific causes are then reconciled with estimates from various epidemiological studies and evidence.

Figure 8: Methodology used for estimating causes of death distribution for countries with partial or no data.



Below is a summary table of the description of each method as described above used in each 14 subregions.

Individual country strategies

Special strategies were adopted to produce causes specific mortality estimates for some countries. These include India and China, for which available data is from sample registration systems, and Thailand, where a large scale verbal autopsy study provided relevant information to correct the mortality data from vital registration. Also, data from Turkey, which was coded according to the ICD 8, had to be corrected for some detailed causes using mortality information from neighboring countries.

India

For India, cause patterns of mortality were based on the Medical Certificate of Cause of Death (MCCD) for urban India and the Annual Survey of Causes of Death (SCD) for rural areas of India. Firstly, the all cause mortality envelope was derived from a time series analysis of age specific death rates from the Sample Registration System (SRS), after correcting them for under registration (88% completeness). This mortality envelope was split into separate ones for urban and rural populations, using a 70:30 ratio. Data on cause specific mortality from separate sources for rural and urban areas were used with these mortality envelopes to build up independent estimates for urban and rural areas, which were summed to get the national cause specific mortality estimates.

Table 7. Methods for cause of death estimation for the GBD 2000, by subregion

Subregion	Method for estimating causes of death distribution					
	Number of Member States	Vital Registration (coverage of 85%+)[x]	Vital registration data (coverage <85%) – use of causes of death models	Sample registration and surveillance	No data- use of causes of death models and regional model pattern of causes of death	Epidemiological estimates for the following diseases used where applicable
AfrD	26	2	-	-	24	a
AfrE	20	-	5	-	15	a
AmrA	3	3	-	-	-	b
AmrB	26	17	8	-	1	a
AmrD	6	-	3	-	3	a
EmrB	13	2	3	-	8	a
EmrD	9	-	2	-	7	a
EurA	26	24	-	-	2	b
EurB	16	7	9	-	-	a
EurC	9	8	1	-	-	c
SearB	3	1	2	-	-	a
SearD	7	-	-	1	6	a
WprA	5	5	-	-	-	b
WprB	22	3	5	1	13	a
Total	**191**	72	38	2	79	

[a] AIDS, tuberculosis, measles, pertussis, poliomyelitis, tetanus, acute lower respiratory infections, chagas ,maternal conditions, perinatal conditions, cancers, drug use disorders, rhumathoid arthritis and war

[b] Drug use disorders and war

[c] AIDS, drug use disorders and war

[d] The threshold of coverage of 85% used for causes of death differs from that used for registration of deaths(95%) since the biases from underreporting of the fact of death are more serious for BOD assessment than for cause of death coverage

For rural areas, data from the Survey of Causes of Death – rural *(36)* for the years 1996-1998 were averaged, and mapped onto the GBD classification using an algorithm based on that developed in the Andhra Pradesh Burden of Disease study *(37)*. This includes the redistribution of ill defined deaths to specific causes, based on a verbal autopsy retest survey, conducted as part of the field studies in this project. For urban areas, data from the Medical Certification of Cause of Death System (1996) were used, which provides data on about 400,000 deaths annually, coded to a national list of ICD 9 causes groups that approximates the ICD 9 Basic Tabulation List *(38)*. These data were mapped onto the GBD classification, and inflated to the urban mortality envelope. The proportion of urban deaths due to injuries was adjusted, based on results from a large scale verbal autopsy study in the city of Chennai, which detected that about 2.5 % of deaths certified as due to ill defined medical causes were actually due to injuries *(39)*.

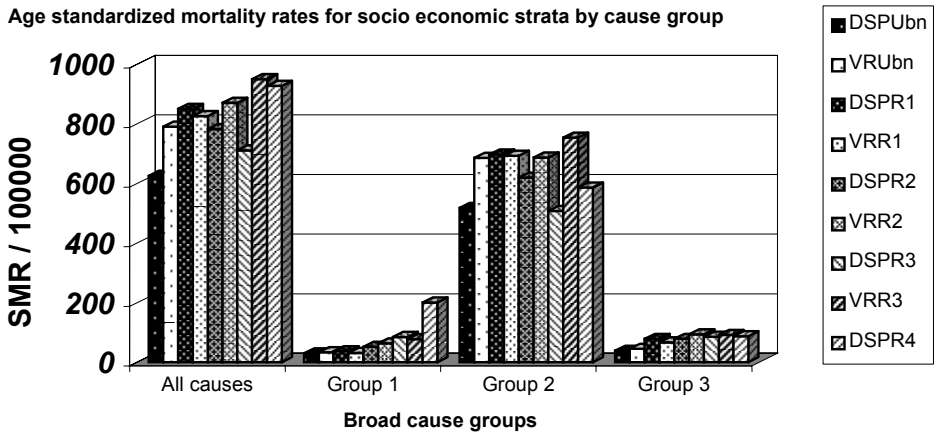
The summed national level cause-specific mortality estimates were adjusted with information from WHO technical programs on maternal, perinatal and childhood cluster conditions, as well as epidemiological estimates for tuberculosis, HIV, illicit drug dependence and problem use, rheumatoid arthritis and war deaths.

China

Cause specific mortality data from China is available from two sources - the sample Vital Registration system (VR) monitored by the Ministry of Health and the Disease Surveillance Point System (DSP), monitored by the Chinese Center for Disease Control. Table 4 gave a brief summary of the design and operational characteristics of these systems. The data sources and methods used to construct the life table for China are described earlier. We analysed the cause of death data at sub national level (the socioeconomic strata described above in Section 3.1), and applied these analyses to produce national level estimates of cause specific mortality for the year 2000.

Data from the VR for the year 2000, and a three year average for the DSP from 1997 – 1999, were separately appraised for their usability in estimating national level cause specific mortality for China. From the two systems, a comparison of age standardized mortality rates for specific conditions for each socio economic strata was carried out, as shown in Figure 9. In summary, we found that the DSP mortality rates more truly reflected the broad cause group specific mortality distribution, especially in the rural areas. Also, the sampling distribution of sites in the DSP is more nationally representative than the VR. Hence, we chose the broad cause group mortality proportionate distribution for each socioeconomic strata, from the DSP data However, mortality at sub group level and specific cause were better described from the VR data, and showed more plausible age patterns for specific causes, being based on a significantly larger sample of deaths. Hence we used the specific cause proportionate mortality distribution from the VR data.

Figure 9. Group-specific age-standardized mortality rates for each socio economic stratum, for the two mortality data systems (DSP and VR), China 1990



To each stratum specific mortality envelope, we applied the broad cause group proportionate mortality for each age sex group from the DSP, to derive the age sex broad cause group mortality in absolute numbers of deaths. To this broad cause group envelope, we applied the specific cause proportionate mortality from the vital registration data, for that specific stratum. We used the *rural 3* VR proportionate mortality for both the *rural 3* and *rural 4* mortality envelopes. Finally, we summed the mortality from each stratum, to get a national estimate of cause specific mortality, that had not been corrected for under registration. We then inflated this cause specific mortality to the national all cause mortality envelope from the life table analysis, to get the final national estimate of cause specific mortality.

These estimates were then adjusted with information from WHO technical programs on maternal, perinatal and childhood cluster conditions, as well as epidemiological estimates for tuberculosis, HIV, illicit drug dependence and problem use, rheumatoid arthritis and war deaths.

Thailand

We used vital registration data for the year 2000,which had a coverage of over 80%. However, we found that the proportion of ill defined conditions was nearly 50 %, since many deaths in Thailand occur at home, and the cause of death is reported by lay persons. In order to improve the usability of the VR data, the Thai Ministry of Health had conducted a retest survey on a sample of about 33,000 deaths, using verbal autopsy methods, to verify/ascertain the true cause of death. This included a sample of 12000 deaths with ill defined causes. The study detected that about 66% of deaths with ill defined causes were reallocated to specific causes, including reclassification of many deaths to HIV. We used the reallocation algorithm for ill defined causes from the verbal autopsy study, to correct the high proportion of ill defined deaths from the vital registration data, and then inflated the resultant cause specific proportionate mortality to the national mortality envelope derived from the life table analysis.

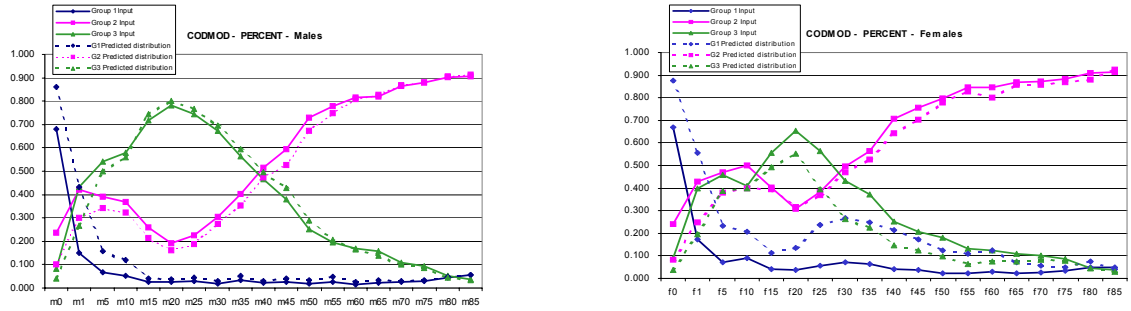
Egypt

Although data from Egypt for the year 2000 was near complete vital registration (> 80%), it contained high proportions of deaths coded to symptoms and ill defined conditions, as well as to conditions such as heart failure, and cardiac arrest, which are essentially not underlying causes of death. Hence, we used a model based prediction of the broad cause proportionate distribution by age and sex, and applied the cause specific mortality structure from the country data, after excluding a major proportion of the ill defined deaths, and inflated this to the national mortality envelope.

Iran

Data from the vital registration system in Iran was compiled for 10 of the 23 provinces for the year 2000. This was coded to a condensed list of 150 cause categories, using the ICD 10 classification system. Since the population covered by registration was partial, we used a model based prediction of the broad cause proportionate mortality for the whole country, as shown in Figure 10.

Figure 10. Model based prediction of GBD group proportionate mortality for Iran, 2000.



We observed that the model correctly predicted a higher proportion of Group 1 causes for both males and females in childhood age groups, and a higher proportion of group 1 causes or females aged 15-44, which reflects the expectation of higher maternal mortality in the non registered population. To this predicted distribution, we applied the specific cause proportionate mortality from the reported data and inflated the results to the national mortality envelope derived from the life table analysis.

Epidemiological estimates for specific causes

As outlined in Table 7 above, specific epidemiological estimates for some causes were also taken into account in analysing cause of death for WHO Member States. The data sources and methods used to estimate deaths for certain specific causes are summarized below.

Tuberculosis

Starting in 1997, the World Health Organization began a study to develop country estimates of incidence, prevalence and mortality from tuberculosis. Data sources and methods used in that study have been described in detail elsewhere *(40)*. In brief, estimates of incidence were derived from case notifications adjusted by estimated case detection rates, prevalence data on active disease combined with estimates of average case durations, or estimates of infection risk multiplied by a scalar factor relating incidence of smear-positive pulmonary tuberculosis to annual risks of infection.

Since the original estimates for 1997 were completed, revised and updated estimates have been prepared. The 1997 incidence estimates were updated based on notification trends for most countries outside the African region, by relationships between notification trends and adult HIV prevalence rates in a number of African countries, by new disease prevalence studies, and by revised estimates of case detection rates based on new assessments of the quality of surveillance systems *(41)***.** Annual reports on tuberculosis control have included further details on surveillance methods, case notifications and incidence estimates by country *(42)*.

HIV/AIDS

Country-specific estimates of HIV and AIDS have been developed by UNAIDS and WHO and revised periodically to account for new data and improved methods *(43;44)*. For the most recent round of estimates, two different types of models have been used depending on the nature of the epidemic in a particular country. For generalized epidemics, in which infection is spread primarily through heterosexual contact, a simple epidemiologic model was used to estimate epidemic curves based on sentinel surveillance data on HIV sero-prevalence *(45)*. For countries with epidemics concentrated in high-risk groups, prevalence estimates were derived from the estimated population size and prevalence surveillance data in each high-risk category, and simple models were then used to back-calculate incidence based on these estimated prevalence trends *(46)*.

Vaccine-preventable childhood diseases

The approach to estimate measles and pertussis mortality was based on incidence data from a natural history model, country specific vaccine coverage and attack rates from population-based studies *(47;48)*. Case fatality rates from community-based and outbreak studies were applied to incidence to obtain mortality in countries where vital registration is not available.

The incidence estimates for polio and diphtheria *(49;50)* were based on reported cases with adjustments for under-reporting (country-specific AFP rate for polio and notification efficiency of 20% for diphtheria cases). A case-fatality rate of 10% was assumed for diphtheria in countries without high vital events coverage.

Acute lower respiratory infections

Community based studies were used to estimate the proportional mortality from acute lower respiratory infections in children 0-4 years in developing countries *(51)*. This model was validated and supplemented with vital statistics from developing countries where coverage is high. Mortality in developed countries was derived from vital events registration.

Malaria

Malaria mortality estimates for all regions except AFRO were derived from the cause of death data sources described above. For Africa, country-specific estimates of malaria mortality were based on analyses by Snow et al. *(52)* with adjustments to ensure that total mortality for Group 1 causes, particularly in the 0-4 year age group, and including estimates for other specific causes such as TB, HIV/AIDS and measles, added to the total all cause mortality envelopes for the countries. Work is currently underway in collaboration with other WHO programs and external expert groups to refine and revise these country-specific estimates of malaria mortality.

Chagas disease

Chagas' disease estimates were obtained from recent intensive surveillance activities in the Southern Cone American countries and community-based studies *(53)*. It was assumed that 26% of cases develop right bundle branch block, of which 7.5% die. It was also assumed that 5% of acutely ill and symptomatic children aged 0-4 years die without treatment. For the latter we assumed that 90% of children in Northern countries and 0% in Southern countries would remain without treatment. The mortality at ages 5-29 years was thought to be negligible *(53)*. These estimates were supplemented with and validated against vital statistics from Latin American countries where coverage is high.

Maternal mortality

Mortality from maternal conditions was estimated as previously described *(54;55)*. This method uses both nationally reported data and specific criteria for a regression model to estimate mortality for countries without death registration data. The regression model included variables for proportion of deliveries with skilled health worker, general fertility rate, an indicator of HIV prevalence in adults and dummy variables for regions *(54)*. Collaborative work is currently underway to revise and improve these estimates using more recently available mortality data for developing countries, together with improved estimates of the impact of HIV/AIDS as a competing cause of mortality.

Perinatal causes

The cause category *Perinatal causes* refers to the ICD cause group Conditions arising in the perinatal period. Deaths from these causes (primarily low birthweight and birth trauma and asphyxia) may occur at any age and should not be confused with deaths occuring during the perinatal period (which includes stillbirths and neonatal deaths from any cause). A large body of historical data from vital registration time series and from surveys in developing countries (particularly the Demographic and Health Surveys) has been used to analyze deaths due to perinatal causes as a proportion of total deaths under 1 year and under 5 years. This relationship has been used to estimate the country-specific deaths due to perinatal causes from the life table estimates of under 1 mortality from all causes. Work is currently underway in collaboration with other WHO programs and external expert groups to refine and revise these country-specific estimates of mortality due to perinatal causes.

Cancer

The approaches to estimating cancer mortality distributions were different depending on the availability and quality of data on detailed causes of death. Direct estimates of the site-specific distributions of cancer mortality were possible for the regions where established vital

registration records with high coverage and coding practice based on the International Statistical Classification of Diseases and Related Health Problems (ICD) are available, including countries in the A sub regions (AmrA, EurA and WprA) and countries in AmrB, EurB1, EurB2 and EurC . For the other regions of the world (AfrD, AfrE, AmrD, EmrB, EmrD, SearB, SearD, WprB1, WprB2 and WprB3), we developed a site-specific model for relative interval survival adjusted for each region and applied it to the regional incidence estimated to calculate the mortality distribution by site for the year 2000 *(32;33;56)***.**

Our age-period-cohort model of cancer survival is based on data from the Surveillance, Epidemiology, and End Results (SEER) *(57)*. The model was further adjusted for the level of economic development (GDP per capita in international dollars) and survival probabilities in each region *(58-64)*. Combined with the available incidence data from the Globocan 2000 of the International Agency for Research on Cancer (IARC) *(65)*, cancer death distributions in such regions were estimated and the model estimates were validated against vital registration data from regions other than the United States *(32)*.

Drug dependence

Estimating mortality directly attributable to illicit drug use such as overdose death - the most tangible adverse heath effect of illicit drug use - is difficult because of variations in the quality and quantity of mortality data. For some regions where there is known to be a substantial prevalence of illicit drug dependence, no deaths are recorded in available data sources as due to drug dependence. As a result, it is necessary to make indirect estimates, involving estimates of the prevalence of illicit drug use and case fatality rates. However, it is difficult to make even indirect estimates because the use of these drugs is illegal, stigmatised and hidden.

As part of the Comparative Risk Assessment work carried out for the World Health Report 2002, estimates of the prevalence of illicit drug dependence and direct mortality were made based on available data *(19;66)*. These analyses were used to obtain estimates of direct mortality due to illicit drug dependence by region. Definitions of the variable of interest are difficult because of deficiencies in the data collected by countries on illicit drug use, and by disagreements over what constitutes "problematic" illicit drug use. The definition used in the CRA analysis was long-term regular injecting use of opioids, amphetamines or cocaine.

Data on the prevalence of problematic illicit drug use were derived from a range of sources. A formal literature search was conducted in which all studies estimating the prevalence of problematic drug use were examined. Other data sources included the United Nations Drug Control Program and European Monitoring Centre for Drugs and Drug Addiction. The existing sex ratios of drug use prevalence were from developed countries. These ratios were adjusted based on the prevalence of other addictive substances (tobbaco) for developing countries. Available data on prevalence in countries with data were used to estimate the prevalence of problematic illicit drug use for WHO regions *(66)*.

A search was also completed for cohort studies of drug users that had estimated mortality due to the individual causes of death (overdose, suicide, and trauma), and to all causes of death (updating previous systematic reviews). Data on the number of years of follow up were extracted from each study and a weighted average annual mortality rate was calculated for each cause of death, and for their sum. A standardized mortality ratio (SMR) was also derived from previous estimates of the excess mortality from all causes attributable to illicit drugs. The median estimate of a range of estimates was used as the estimate for each WHO region. For HIV/AIDS, UNAIDS estimates for HIV incidence among drug users (based on prevalence surveys among high-risk groups) were used.

The total regional deaths due directly to drug use disorders were then distributed among countries in each region in proportion to the estimated prevalences of drug dependence and

problem use. For developed countries with good vital registration data, there is evidence that drug dependence deaths are under-recorded *(67)*. For these countries, drug dependence deaths were adjusted for age groups in which the estimated deaths derived from the CRA analysis exceeded the recorded deaths. These additional deaths were assumed to have been originally miscoded either as accidental poisoning or ill-defined causes.

Rheumatoid arthritis

For some developing regions, available detailed cause of death distributions used for musculoskeletal disorders included no deaths coded to rheumatoid arthritis. Small, but non-zero death rates are observed for regions with high quality vital registration data. These were used to estimate cause-specific case fatality rates, which were then applied to estimated regional prevalence rates for rheumatoid arthritis *(68)* in order to estimate mortality rates for other regions.

War deaths

Country-specific estimates of war deaths and corresponding uncertainty ranges were obtained from a variety of published and unpublished war mortality databases. Primarily, the Project Ploughshares Armed Conflict Report 2001 and 2002 *(69)*, a report which in turn supplies several databases with mortality estimates (such as the CRED EM-DAT file *(70)*, was used for time trend and mortality level estimates. This report was preferable as a source of information as it includes war deaths by country and *year*, a departure from the typical practice of supplying estimates by conflict, across years. These were vetted against the historical and current estimates of other research groups, such as that of the Uppsala Conflict Data Project *(71)*. These datasets rely on press reports of eyewitness accounts and official announcements of combatants, which are, unfortunately, the main and often only possible method of casualty estimation in armed conflicts *(72)*.

Deaths due to landmines and unexploded ordinance has been estimated separately by country. The primary sources for these data were the Landmine Monitor of the International Campaign to Ban Landmines *(73)* and Handicap International's annual report on landmine victims *(74)*.

3.3 YLD estimation

Estimating the years lived with a disability (YLD) is the most difficult component of burden of disease analysis. Various methods have been developed to reconcile often fragmented and partial estimates available from different studies. A specific software tool, DisMod, has been developed to assist in the development of internally consistent estimates *(75)*.

YLD are the disability component of DALYs. The basic formula for calculating YLD is:

$$YLD = I \times DW \times L$$

where I is the number of incident cases in the reference period, DW is the disability weight (in the range 0-1) and L is the average duration of disability (measured in years).

The full formula with discounting and non-uniform age weights is given elsewhere *(6;75)*. Consistent and meaningful YLD estimates depend on a clear definition of the condition under consideration in terms of case or episode, and severity level or disease stage. It is then necessary to ensure that the disability weight and the population incidence or prevalence data relate to the same case definition. The data required to estimate YLD are: disability incidence, disability duration, age of onset, and distribution by severity class, all of which must be disaggregated by age and sex. These in turn require estimates of incidence, remission, case-fatality rates or relative risks, by age and sex.

The key to estimation of YLD is to develop comprehensive and consistent estimates for incidence and point prevalence. WHO program participation in the development and finalisation of these estimates ensures that final estimates reflect all information and knowledge available to WHO. Annex Table 11 summarises Version 1 incidence estimates by subregion for selected causes by subregion. Annex Table 12 similarly summarises point prevalence estimates for selected causes by subregion.

A wide range of data sources are used for the analysis of incidence, prevalence and YLD. These include:

(1) Disease registers

Disease registers record new cases of disease based on reports by physicians and/or laboratories. Registers are common in infectious diseases (e.g. tuberculosis), cancer, congenital anomalies, a number of relatively rare diseases (e.g. cystic fibrosis or thallassaemia), and sometimes conditions such as diabetes, schizophrenia and epilepsy. For many Group I conditions, WHO programs maintain up-to-date databases based on diseases registers, population surveys and epidemiological studies. These have been used where available.

(2) Population surveys

Interview surveys such as the National Health Interview Survey in the USA can provide self-reported information on disabilities, impairments and diseases. However, self-report data is generally not comparable across countries *(76;77)*; it is also often difficult to attribute impairment to the underlying causes, and, there are often considerable differences between the disease concept the 'general public' has and the 'medically' defined disease category for which information is intended to be collected.

In general, the results of measurement surveys contribute more to YLD calculations than self-reported interview surveys. This may even be the case if the measurement survey was conducted in only part of the country or in a specific subpopulation. The CIDI and DIS questionnaires used in mental health surveys are examples of standard questionnaires based on self-report that have undergone validity testing and have been used widely.

(3) Epidemiological studies

Some of the most useful sources of information for the GBD 2000 are population-based epidemiological studies. Particularly, longitudinal studies of the 'natural' history of a disease can provide a wealth of information on the incidence, average duration, levels of severity, remission and case fatality. Such studies are rare because they are very costly to undertake. As they are often conducted in a particular region or town, judgment is needed to extrapolate results to the whole population.

(4) Health facility data

In the majority of cases, routine data on consultations by diagnosis is not be very helpful in estimating burden. Facility based data — unless the coverage of the health system is near complete — will always be based on biased samples of the disability present in the community. Likewise, hospital deaths are unlikely to be useful due to the same problems of selection bias. Examples of conditions that can be estimated from hospital data if there is good coverage and data are available include: perinatal and maternal conditions, meningitis, stroke, myocardial infarction, surgical conditions and the more serious injuries.

Over the next two years, it is planned to progressively document and publish the epidemiological reviews underlying the GBD 2000 estimates. Table 8 summarises the numbers of epidemiological studies or databases available for each WHO region for the

estimation of YLD for selected conditions, together with a reference to more detailed documentation of data sources and methods.

Table 8. GBD2000: numbers of epidemiological studies used, by region, selected causes.

Cause	AFRO	AMRO	EMRO	EURO	SEARO	WPRO	Reference	Comment
Childhood Cluster diseases								
Pertussis	19	89	6	137	8	15		Includes community surveys, country and review data. Plus: 29 Global review studies
Poliomyelitis	Country reporting and correction factor used						*(50)*	
Diphtheria	Country reporting and correction factor used						*(49)*	
Measles	27	40	12	27	9	7	*(47)*	Includes community surveys, country and review data. Plus: 5 Global review studies
Tetanus	79	35	40	45	63	20		Includes community surveys, country, hospital and review data. Plus: 7 Global review studies
Meningitis	27	43	12	45	7	23		
Chagas disease		19					*(53)*	
Leprosy							*(78)*	Country-specific reporting data from WHO Program for the Elimination of Leprosy. Weekly Epidemiological Record, 14 July 2000, No 28, pp 225-31.
Maternal conditions								
Maternal haemmorhage	1	2	1	3	1	1	*(79)*	Includes population representative hospital studies
Maternal sepsis	2	2	2	4	1	1	*(80)*	Includes community based and population representative hospital studies
Hypertensive disorders of pregnancy	2	3	0	2	1	2	(80)	Includes community based and population representative hospital studies, plus 2 reviews
Obstructed labour	3	2	1	5	2	2	(81)	Includes population representative hospital studies, plus 1 review
Abortion							(82)	
Nutritional deficiencies								
Protein-energy malnutrition	45	25	14	16	11	13		Data available on WHO nutrition website
Iodine deficiency	44	16	17	27	25	9		
Vitamin A deficiency	29	14	4	4	9	9		No evidence of problem in A countries or Euro B countries (“0” prevalence assumed)

Table 8 (continued). GBD2000: numbers of epidemiological studies used, by region, selected causes.

Cause	AFRO	AMRO	EMRO	EURO	SEARO	WPRO	Reference	Comment
Malignant neoplasms	14	13	11	25	3	15	*(32;33)*	Number of cancer registries (national or subnational) used to derive incidence rates (refer to the IARC database GLOBOCAN 2000 for further details)
	0	2	0	17	2	4		Number of countries for which cancer survival analyses available and used.
Diabetes mellitus	1	6	4	8	3	5	*(83)*	
Neuropsychiatric conditions								
Unipolar depressive disorders	5	23	3	31	6	8	*(84)*	
Bipolar disorder	1	3	1	9	2	5	*(85)*	
Schizophrenia	5	18		46	26	8	*(86)*	
Alcohol use disorders	5	11	1	27	2	9		
Drug use disorders	15	22	10	47	12	8		
Post-traumatic stress disorder		4		2	1	1	*(87)*	
Obsessive-compulsive disorder	1	5		6	2	5	*(88)*	
Panic disorder	2	5	1	10		5	*(89)*	
Insomnia (primary)	1	6	1	6	3	4		
Hearing loss	8	8	1	8	10	3		
Cerebrovascular disease	12	13	6	42	4	33	(90)	
Chronic obstructive pulmonary disease	8	12	4	36	13	6	*(91)*	Only recent studies from 1980 to 2000 were included in the analysis. Note that Jindal et al. (India) reviewed 11 past surveys from the 1960s and Yan (China) compiled 16 past surveys from the 1970s. Each was treated as one paper.
Asthma	7	25	12	56	12	38		
Rheumatoid arthritis	5	5	4	6	3	6	*(68)*	
Osteoarthritis	1	5	2	6	2	2	*(92)*	
Injuries	6	3	0	3	1	5	*(93)*	Number of countries for which health facility data available and used.

3.4 Disability weights

During the last two years, WHO has embarked on large-scale efforts to improve the methodological and empirical basis for the valuation of health states *(94)*. Thus far, there has been a scarcity of empirical data on health state valuations, and a number of methodological problems have emerged from various research efforts. In order to address both of these challenges WHO, in collaboration with Member States, has initiated a two-tiered data collection strategy involving general population surveys, combined with more detailed surveys among respondents with high levels of educational attainment in the same sites *(95)*.

In the household surveys, individuals provide descriptions for a series of hypothetical health states along seven core domains of health, followed by valuations of these states using a simple thermometer-type (visual analog) scale. The more detailed surveys include more abstract and cognitively demanding valuation tasks that have limited reliability in general population surveys but have been applied widely in industrialized countries among convenience samples of educated respondents.

Statistical methods have been used to estimate the relationships between valuations elicited using visual analog scale and those elicited with other valuation techniques in order to measure the underlying health state severities that inform responses on each of the different measurement methods. A valuation function based on estimation of the relationships between levels on the core domains of health for a particular health state and the valuation of that health state has then been used together with the calibrated prevalences of health states to estimate the overall severity-weighted prevalence of health states for the 61 surveys in 55 countries.

The experience gained in the WHO Household Survey Study in eliciting health state valuations from general population samples has been used in designing the health status and health state valuation modules for the World Health Survey, which will be carried out in over 70 Member States commencing in late 2002.

It is planned for Version 2 of the GBD 2000, to use results from the World Health Survey to comprehensively revise the disability weights used in the GBD 2000. At present, the YLD estimates for Version 1 of the GBD 2000 are still based largely on the GBD 1990 disability weights *(6)*.

3.5 GBD estimates for 2001 and following years

This discussion paper focuses on the methods used in the GBD 2000 study to develop estimates of mortality and burden of disease for the year 2000. These methods have also been used to develop estimates of mortality and burden of disease for the year 2001, published in Annex Tables to the World Health Report 2002. This section briefly describes the methods used.

Life tables for all Member States for the year 2001 were developed using the same methods as for 2000 (see Section 3.1). Deaths by age, sex and cause were estimated for each Member State using the same general methods as for 2000 (see Section 3.2).

In order to estimate YLDs by cause, age, sex and region for 2001, incidence and prevalence rates were imputed from subregion level to country level for 2000 as shown in Table 9 for every disease and injury sequela (listed in Annex Table 4). Incidence and prevalence rates for 2001 were then imputed by age and sex for each country for 2001 using cause-specific methods as shown in Table 9. Absolute incidence and prevalence numbers by age and sex were then added for all countries in a region to provide regional estimates for 2001. YLDs for 2001 were then calculated assuming that disability weights and durations were the same in 2001 as in 2000.

Table 9. Methods used to estimate YLD for 2001

Method	Imputation of country-specific incidence rates from regional incidence rates for 2000	Imputation of 2001 incidence rates from 2000 incidence rates at country level	Causes
Country-specific data	Country-specific prevalence or incidence data used	Country-specific prevalence or incidence data used	HIV/AIDS, pertussis, diphtheria, measles, tetanus, meningitis, onchocerciasis, trachoma, abortion, PE malnutrition, iodine deficiency, diabetes mellitus, unipolar depressive disorders*, alcohol use disorders, drug use disorders, asthma
Incidence/ mortality ratio – short duration	Regional age-sex specific incidence/mortality ratio applied to country-specific mortality to estimate incidence. Same approach used for prevalence	Incidence and prevalence for 2000 adjusted by ratio of 2001 to 2000 cause-specific mortality by age and sex.	Tuberculosis, hepatitis B , hepatitis C , malaria, lower respiratory infections, malignant neoplasms, rheumatic heart disease, hypertensive heart disease, inflammatory heart disease, other cardivoascular, peptic ulcer disease, cirrhosis of the liver, appendicitis, nephritis and nephrosis
Incidence/ mortality ratio – long duration	Regional age-sex specific incidence/mortality ratio applied to country-specific mortality to estimate incidence. Resultant country/regional sex specific all-ages YLD[0,0] ratio applied to regional prevalence YLD total for that sex to estimate country-specific prevalences by age and sex	Incidence for 2000 adjusted by ratio of 2001 to 2000 cause-specific mortality by age and sex. Resultant 2001/2000 sex specific all-ages YLD[0,0] ratio applied to 2000 country prevalence YLD total for that sex to estimate country-specific prevalences by age and sex for 2001	Endocrine disorders, Parkinson disease, ischaemic heart disease, cerebrovascular disease, COPD, other respiratory diseases, other digestive diseases, other genitourinary system diseases, road traffic accidents, poisonings, falls, fires, other unintentional injuries, self-inflicted injuries, violence, war, other intentional injuries
All cause incidence/ mortality ratio	Regional age-sex specific incidence rates adjusted by ratio of age-standardised country/regional cause-specific mortality rates. Prevalence is adjusted using the same method for short-duration conditions. Prevalence for long-duration conditions is adjusted by the YLD[0,0] ratio method	Age-sex specific incidence rates for 2000 adjusted by ratio of 2001 to 2000 age-standardized cause-specific mortality. Resultant country sex specific YLD[0,0] ratio ratio applied to estimate country-specific prevalence	Perinatal causes, maternal haemorrhage and sepsis, congenital malformations excluding cleft lip and palate and Down syndrome
Regional rates	Regional age-sex specific incidence and prevalence rates applied to countries	Regional age-sex specific incidence and prevalence rates applied to countries, with time-trend adjustments where evidence for incidence or prevalence trends is available.	Sexually transmitted diseases excluding HIV, diarrhoeal diseases, poliomyelitis, trypanosomiasis, Chagas disease, schistosomiasis, leishmaniasis, lymphatic filariasis, leprosy, dengue, Japanese encephalitis, intestinal nematode infections, other infectious diseases, upper respiratory infections, otitis media, obstructed labor, vitamin A deficiency, iron-deficiency anaemia, other nutritional disorders, other neoplasms, bipolar affective disorder, schizophrenia, epilepsy, Alzheimer and other dementias, multiple sclerosis, post-traumatic stress disorder, obsessive-compulsive disorder, panic disorder, insomnia (primary), migraine, mild mental retardation attributable to lead exposure, other neuropsychiatric disorders, sense organ disorders, benign prostatic hypertrophy, skin diseases, musculoskeletal diseases, cleft lip and palate, and Down syndrome, oral conditions

* Some country data plus regression model based on suicide rates.

4. GBD 2000 Version 2 results

This section gives an overview of Version 2 results for 2000. These Version 2 results underlie the comparative risk assessments for 20 major risk factors and cost effectiveness analyses published in the World Health Report 2002 *(17)*. It is important to note that the results reported here and in the Annex Tables are tabulated by underlying direct cause as described above in Section 2.3. Total attributable deaths for some diseases which increase the risk of other diseases or injuries will be substantially larger.

Deaths and YLL for all causes have been estimated from the available sources of data as described above in Sections 3.1 and 3.2. An incremental approach is being taken for the revision of YLD estimates. Version 2 of the GBD 2000 includes new reviews of the epidemiological data and new or revised disease models for many causes – in some cases, these draft estimates will undergo further review and revision. For other causes which have not yet been reviewed in detail, the previous disease models have been updated to reflect trends in mortality between 1990 and 2000. Annex Table 4 gives details of the stage of revision for each cause.

Detailed tabulations by region, age and sex of Version 2 results for mortality, incidence, prevalence, YLD, YLL and DALYs may be downloaded from the WHO website at www.who.int/evidence/bod.

Table 10. Life expectancy (LE), healthy life expectancy (HALE), and lost healthy years as per cent of total LE (LHE%), at birth and at age 60, by sex and total, WHO regions and world, Version 2 results, 2000

	Persons			Males			Females		
WHO Region	HALE (years)	LE (years)	LHE% (%)	HALE (years)	LE (years)	LHE% (%)	HALE (years)	LE (years)	LHE% (%)
At birth									
AFRO	39.2	48.0	18.4	37.3	46.7	20.1	41.1	49.3	16.7
AMRO	63.2	73.7	14.3	60.4	70.4	14.1	65.9	77.0	14.4
EMRO	51.8	62.4	17.1	50.6	61.1	17.2	52.9	63.7	16.9
EURO	63.2	72.2	12.4	60.3	68.1	11.4	66.1	76.3	13.3
SEARO	52.3	61.8	15.3	52.0	60.7	14.2	52.6	62.8	16.3
WPRO	63.6	72.0	11.6	61.9	69.9	11.4	65.4	74.1	11.8
World	56.0	65.0	13.8	54.3	62.7	13.4	57.7	67.2	14.2
At age 60									
AFRO	8.8	15.1	42.2	7.4	14.1	47.3	10.1	16.2	37.6
AMRO	15.0	21.3	29.4	13.6	19.4	30.2	16.5	23.1	28.7
EMRO	9.9	16.4	39.7	9.1	15.6	41.5	10.7	17.2	38.1
EURO	13.9	19.3	28.2	12.5	17.2	27.2	15.2	21.4	28.9
SEARO	10.4	16.3	36.2	10.0	15.5	35.4	10.8	17.2	36.9
WPRO	14.4	19.6	26.2	13.3	18.1	26.5	15.6	21.1	25.9
World	12.9	18.4	30.0	11.6	16.7	30.3	14.2	20.2	29.7

4.1 Global and regional life expectancies in the year 2000

Detailed life tables for 191 WHO Member States for Version 1 of the GBD 2000 have been published recently by WHO *(25)*. Version 2 life expectancies and mortality risks for 2000 and 2001 have been published for the 191 WHO Member States in the World Health Report 2002, together with estimates of healthy life expectancy (HALE) based in part on the Version 2 YLD results from the GBD 2000 *(17)*. In this section, we briefly summarize average life expectancies and healthy life expectancies for the WHO and GBD regions.

Table 10 summarizes life expectancies at birth and at age 60 for the 6 WHO regions and for the globe, together with healthy life expectancies. Methods used for the calculation of healthy life expectancy are described in detail elsewhere *(96)*. Overall, global life expectancy at birth in 2000 for males and females combined is 65.0 years, and healthy life expectancy is 9.0 years lower at 56.0 years. Global average life expectancy at birth is 4.5 years higher for females than for males. In comparison, global average HALE at birth for females is just over 3 years greater than that for males.

Across the GBD epidemiological regions, average life expectancies at birth in 2000 ranged from around 45 years for males and females in AFRO E to a high of over 80 years for females in the low mortality countries of Western Europe and Japan, Australia and New Zealand (Table 11). Regional healthy life expectancies at birth in 2000 ranged from a low of 35 years for males in AFRO E to a high of over 70 years for females in the low mortality countries of Western Europe and Japan, Australia and New Zealand. Regional life expectancies at age 60 in 2000 ranged from a low of around 14 years in Africa to a high 26 years for females in WPRO A (Japan, Australia and New Zealand.

Trends in regional life expectancies over the last decade

Overall, for the entire population of the world, average life expectancy at birth in 2000 was 65.0 years, an increase of 6 years over the last two decades. As shown in Figure 11, life expectancy increased during the 1990s for most regions of the world, with the notable exception of Africa and the former Soviet countries of Eastern Europe. In the latter case, male and female life expectancies at birth declined by 3.2 years and 2.7 years respectively, over the 10 year period between 1990 and 2000. GBD 2000 results are compared in Figure 11 with GBD 1990 results using the GBD 1990 regions *(2)*. On average, HIV/AIDS has reduced life expectancy for sub-Saharan Africans by 6 years in 2000**.** The largest impact has been in Zimbabwe, Botswana and Namibia, where male and female life expectancies would be around 20 years higher if there were no deaths due to HIV/AIDS.

4.2 Version 2 estimates of deaths by cause for 2000

Annex Table 10 summarizes GBD 2000 Version 2 estimates of death by cause, age and sex for the 14 mortality subregions. These results are consistent with the estimates for 2001 published in the Annex Tables to the World Health Report 2002**.**

The top 10 disease and injury causes of death in the year 2000 for the world are shown in Table 12, and for developed countries (EURO plus AMRO A and WPRO A) and developing countries (the rest of the world) in Table 13. In developed countries, ischaemic heart disease and cerebrovascular disease (stroke) are together responsible for 37% of mortality, and death rates are higher for men than women. This proportion has decreased slightly from 38% in 1990. The increase in cardiovascular mortality in Eastern European countries has been offset by continuing declines in many other developed countries. Lung cancer is the third leading cause of death, again with a nearly 3-fold male excess. Another largely tobacco-related cause, chronic obstructive lung disease, is the 5th leading cause of death, accounting for 3% of deaths in developed countries. Suicide accounts for nearly 2% of deaths in developed countries, a

Table 11. Life expectancy (LE), healthy life expectancy (HALE), and lost healthy years (LHE) as per cent of total LE (HLE%), at birth and at age 60, by sex and subregion, Version 2 results, 2000

	Persons			Males			Females		
WHO Region	HALE (years)	LE (years)	LHE% (%)	HALE (years)	LE (years)	LHE% (%)	HALE (years)	LE (years)	LHE% (%)
At birth									
AFRO D	42.0	51.6	18.6	40.1	50.6	20.7	43.9	52.7	16.7
AFRO E	36.5	44.4	17.8	35.1	43.5	19.3	37.9	45.2	16.2
AMRO A	68.1	77.1	11.7	66.5	74.4	10.6	69.6	79.8	12.8
AMRO B	59.7	71.1	16.0	56.2	67.6	16.8	63.1	74.5	15.3
AMRO D	55.0	65.9	16.6	52.1	63.5	17.9	57.9	68.4	15.4
EMRO B	58.5	69.9	16.4	57.5	68.4	16.0	59.5	71.4	16.7
EMRO D	53.9	65.7	17.9	52.2	63.9	18.2	55.7	67.5	17.5
EURO A	70.3	78.0	9.9	68.2	74.8	8.9	72.4	81.1	10.8
EURO B1	60.9	70.3	13.4	58.8	66.9	12.2	63.1	73.7	14.4
EURO B2	52.8	64.7	18.4	50.0	61.6	18.9	55.6	67.8	18.0
EURO C	56.8	66.2	14.2	52.1	60.3	13.6	61.6	72.1	14.6
SEARO B	57.4	67.1	14.5	55.9	64.6	13.5	59.0	69.7	15.4
SEARO D	51.1	60.5	15.5	50.9	59.3	14.3	51.4	61.7	16.8
WPRO A	73.2	80.8	9.4	70.8	77.3	8.4	75.5	84.2	10.3
WPRO B1	62.9	70.9	11.2	61.4	68.8	10.8	64.5	73.0	11.6
WPRO B2	52.1	62.1	16.1	49.2	59.6	17.6	55.0	64.5	14.6
WPRO B3	49.7	59.5	16.3	47.9	58.0	17.3	51.6	60.9	15.4
World	56.0	65.0	13.8	54.3	62.7	13.4	57.7	67.2	14.2
At age 60									
AFRO D	8.7	15.1	42.6	7.4	14.2	47.8	9.9	16.0	37.9
AFRO E	8.5	14.5	41.3	7.2	13.5	46.5	9.8	15.6	36.9
AMRO A	16.1	21.5	25.3	14.9	19.7	24.5	17.3	23.4	25.9
AMRO B	12.7	19.3	34.1	11.2	17.6	36.6	14.3	21.0	32.0
AMRO D	11.8	18.0	34.4	10.4	16.7	37.7	13.2	19.3	31.6
EMRO B	11.0	17.6	37.3	10.3	16.7	38.5	11.8	18.5	36.3
EMRO D	9.7	16.4	40.7	8.8	15.4	42.7	10.7	17.5	38.9
EURO A	16.6	21.6	22.9	15.2	19.4	21.7	18.1	23.8	23.9
EURO B1	12.7	18.1	30.0	11.5	16.3	29.6	13.9	19.9	30.3
EURO B2	10.1	16.6	39.5	8.6	15.2	43.4	11.5	18.0	36.2
EURO C	10.9	16.1	32.7	9.0	13.7	34.0	12.7	18.6	31.7
SEARO B	11.4	17.4	34.7	10.9	16.3	33.3	11.9	18.6	36.0
SEARO D	10.2	16.1	36.5	9.5	14.7	35.4	11.0	17.5	37.3
WPRO A	18.8	23.8	21.1	16.9	21.2	20.4	20.7	26.4	21.8
WPRO B1	13.7	18.5	26.2	12.3	16.6	26.1	15.0	20.4	26.2
WPRO B2	10.2	16.5	38.3	8.8	15.4	42.9	11.6	17.6	34.3
WPRO B3	10.0	16.4	39.3	8.7	15.2	42.8	11.3	17.7	36.3
World	12.9	18.4	30.0	11.6	16.7	30.3	14.2	20.2	29.7

Figure 11. Gains in life expectancy at birth from 1990 to 2000, by sex and region.

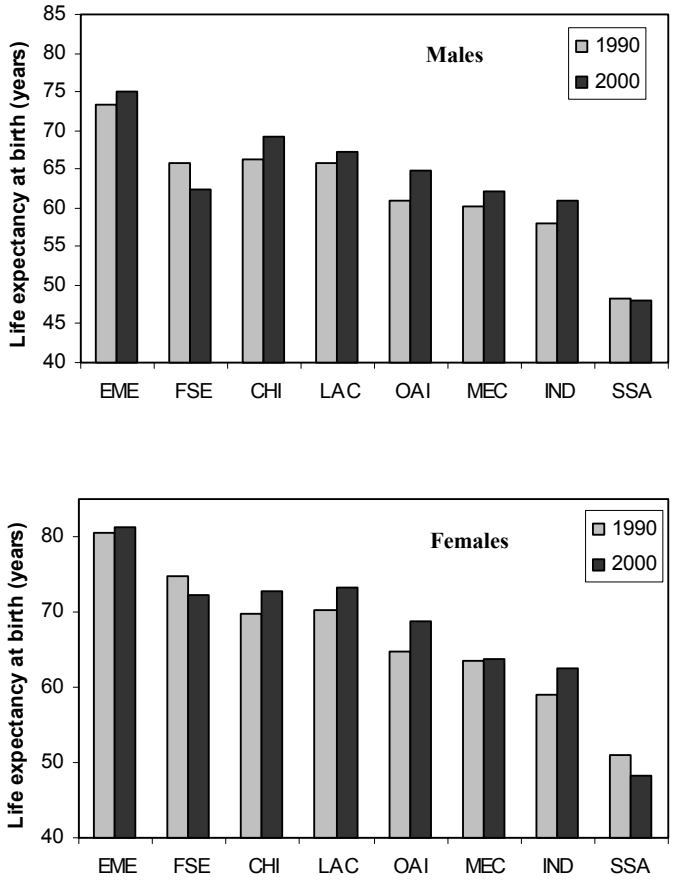


Table 12. Ten leading causes of death, Version 2 global estimates for 2000

		% of total deaths
All countries		
1	Ischaemic heart disease	12.6%
2	Lower respiratory infections	11.1%
3	Cerebrovascular disease	9.6%
4	Chronic obstructive pulmonary disease	4.7%
5	HIV/AIDS	4.6%
6	Perinatal conditions	4.5%
7	Diarrhoeal diseases	3.6%
8	Tuberculosis	2.9%
9	Road traffic accidents	2.2%
10	Trachea, bronchus, lung cancers	2.1%

proportion that has remained unchanged since 1990. Road traffic accidents are no longer in the top 10 causes of mortality, as there has been a decline in death rates due to road traffic accidents of nearly 30% since 1990.

The leading causes of mortality are very different in developing countries (Table 13). While the 3 leading causes of death in 2000 include ischaemic heart disease and cerebrovascular

disease, together claiming almost one fifth of all deaths in developing countries, six of the top ten causes of death in developing countries are infectious and perinatal causes. Acute lower respiratory infections (primarily pneumonia) are the third leading cause of death (60% of these among children aged under 5). HIV/AIDS is the fifth leading cause of death for developing countries in the year 2000, accounting for 6% of all deaths or 2.5 million deaths in total. More than 80% of these deaths occurred in Africa, making HIV the leading cause of death in this region, claiming almost one in four deaths. Chronic obstructive lung disease kills more people (1.3 million) in the Western Pacific Region (primarily China) than anywhere else in the world, with 50% of global mortality from the disease occurring there.

Table 13. Ten leading causes of death, developed and developing regions, Version 2 estimates, 2000

	Developed countries (EURO, AMRO A, WPRO A)	% of total deaths		Developing countries (All other regions)	% of total deaths
1	Ischaemic heart disease	23.3%	1	Ischaemic heart disease	9.2%
2	Cerebrovascular disease	13.4%	2	Cerebrovascular disease	8.4%
3	Trachea, bronchus, lung cancers	4.4%	3	Lower respiratory infections	7.9%
4	Lower respiratory infections	3.6%	4	Perinatal conditions	6.0%
5	Chronic obstructive pulmonary disease	3.2%	5	HIV/AIDS	6.0%
6	Colon and rectum cancers	2.3%	6	Chronic obstructive pulmonary disease	5.2%
7	Self-inflicted injuries	1.8%	7	Diarrhoeal diseases	4.6%
8	Diabetes mellitus	1.7%	8	Tuberculosis	3.6%
9	Stomach cancer	1.7%	9	Malaria	2.7%
10	Hypertensive heart disease	1.7%	10	Road traffic accidents	2.4%

Other leading causes of death in developing countries include two major causes of childhood mortality, perinatal conditions and diarrhoeal diseases, which claim 2.4 and 2.1 million lives each year respectively, followed by TB (1.6 million), malaria and road traffic accidents. While death rates due to perinatal conditions have declined slightly compared with 1990, death rates due to diarrhoeal diseases have declined substantially, from an estimated 2.9 million deaths in 1990.

There were an estimated 1.2 million lung cancer deaths in 2000, an increase of nearly 30% in the ten years from 1990 . Of the 6.9 million cancer deaths estimated to have occurred in 2000, one in six (18%) were due to lung cancer alone and of these, three-quarters occurred among men. Stomach cancer, which until recently was the leading site of cancer mortality worldwide, has been declining in all parts of the world where trends can be reliably assessed and now causes 744,000 deaths each year, or about two-thirds as many as lung cancer. Liver cancer is the third leading site, with 626,000 deaths a year, more than half (56%) of which are estimated to occur in the Western Pacific Region.

Lung cancer is the ninth leading cause of death in males, and the 18th in females (Table 14). Leading causes of death are otherwise generally similar for males and females, although breast cancer and hypertensive heart disease are higher in rank for females than males.

Leading causes of death for each of the 6 WHO regions are shown in Table 15. The proportions of deaths in Groups I, II and III vary substantially across regions. Figure x shows these proportions for the 14 reporting subregions for 2000.

Table 14. Leading causes of death in males and females, Version 1 global estimates for 2000

	Males	% total deaths		Females	% total deaths
1	Ischaemic heart disease	12.6%	1	Ischaemic heart disease	12.7%
2	Cerebrovascular disease	8.4%	2	Cerebrovascular disease	10.9%
3	Lower respiratory infections	6.9%	3	Lower respiratory infections	6.9%
4	Perinatal conditions	4.8%	4	Chronic obstructive pulmonary disease	4.9%
5	HIV/AIDS	4.7%	5	HIV/AIDS	4.5%
6	Chronic obstructive pulmonary disease	4.5%	6	Perinatal conditions	4.2%
7	Diarrhoeal diseases	3.6%	7	Diarrhoeal diseases	3.7%
8	Tuberculosis	3.5%	8	Malaria	2.2%
9	Trachea, bronchus, lung cancers	3.0%	9	Hypertensive heart disease	2.1%
10	Road traffic accidents	2.9%	10	Tuberculosis	2.1%
11	Malaria	1.8%	11	Diabetes mellitus	1.8%
12	Self-inflicted injuries	1.8%	12	Breast cancer	1.6%
13	Stomach cancer	1.8%	13	Measles	1.5%
14	Cirrhosis of the liver	1.7%	14	Upper respiratory infections	1.3%
15	Liver cancer	1.4%	15	Road traffic accidents	1.3%
16	Measles	1.3%	16	Self-inflicted injuries	1.2%
17	Diabetes mellitus	1.3%	17	Stomach cancer	1.2%
18	Hypertensive heart disease	1.3%	18	Trachea, bronchus, lung cancers	1.2%
19	Violence	1.3%	19	Nephritis and nephrosis	1.1%
20	Nephritis and nephrosis	1.1%	20	Cirrhosis of the liver	1.1%

Figure 12. Proportion of deaths attributable to Group I, II and III causes, by subregion, 2000

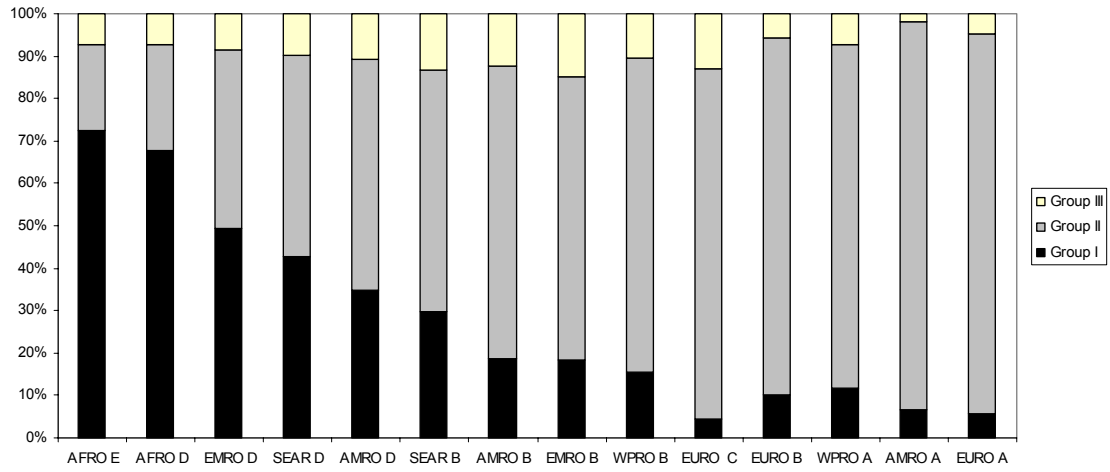


Table 15. Leading causes of deaths in WHO regions, Version 2 estimates for 2000

	African Region (AMRO)	% total deaths		American Region (AMRO)	% total deaths
1	HIV/AIDS	19.2%	1	Ischaemic heart disease	16.4%
2	Lower respiratory infections	9.7%	2	Cerebrovascular disease	7.7%
3	Malaria	9.2%	3	Diabetes mellitus	3.9%
4	Diarrhoeal diseases	6.6%	4	Trachea, bronchus, lung cancers	3.9%
5	Perinatal conditions	5.8%	5	Lower respiratory infections	3.8%
6	Measles	4.3%	6	COPD	3.8%
7	Ischaemic heart disease	3.1%	7	Perinatal conditions	3.2%
8	Tuberculosis	3.0%	8	Violence	2.6%
9	Cerebrovascular disease	2.9%	9	Road traffic accidents	2.4%
10	Road traffic accidents	1.7%	10	Hypertensive heart disease	2.2%
11	Whooping cough	1.6%	11	Colon and rectum cancers	1.8%
12	Tetanus	1.2%	12	Cirrhosis of the liver	1.8%
13	War	1.1%	13	Nephritis and nephrosis	1.6%
14	Violence	1.1%	14	Alzheimer and other dementias*	1.6%
15	COPD	1.1%	15	Breast cancer	1.5%
	Eastern Mediterranean (EMRO)	**% total deaths**		**European Region (EURO)**	**% total deaths**
1	Ischaemic heart disease	12.6%	1	Ischaemic heart disease	24.8%
2	Perinatal conditions	8.8%	2	Cerebrovascular disease	15.1%
3	Lower respiratory infections	8.7%	3	Trachea, bronchus, lung cancers	3.8%
4	Diarrhoeal diseases	7.6%	4	Lower respiratory infections	3.1%
5	Cerebrovascular disease	5.3%	5	COPD	2.9%
6	Tuberculosis	3.3%	6	Colon and rectum cancers	2.4%
7	Road traffic accidents	2.6%	7	Hypertensive heart disease	1.8%
8	Measles	2.2%	8	Self-inflicted injuries	1.8%
9	Hypertensive heart disease	2.2%	9	Stomach cancer	1.8%
10	COPD	2.1%	10	Cirrhosis of the liver	1.7%
11	Congenital anomalies	1.9%	11	Breast cancer	1.6%
12	Whooping cough	1.5%	12	Diabetes mellitus	1.5%
13	Nephritis and nephrosis	1.5%	13	Road traffic accidents	1.3%
14	Cirrhosis of the liver	1.4%	14	Poisonings	1.1%
15	Tetanus	1.4%	15	Alzheimer and other dementias*	1.0%
	South East Asian Region (SEARO)	**% total deaths**		**Western Pacific Region (WPRO)**	**% total deaths**
1	Ischaemic heart disease	13.3%	1	Cerebrovascular disease	16.4%
2	Lower respiratory infections	9.3%	2	COPD	11.5%
3	Perinatal conditions	7.3%	3	Ischaemic heart disease	8.2%
4	Cerebrovascular disease	7.2%	4	Lower respiratory infections	5.0%
5	Diarrhoeal diseases	5.5%	5	Stomach cancer	4.1%
6	Tuberculosis	4.9%	6	Trachea, bronchus, lung cancers	3.5%
7	COPD	4.2%	7	Liver cancer	3.2%
8	HIV/AIDS	2.8%	8	Perinatal conditions	3.1%
9	Road traffic accidents	2.5%	9	Tuberculosis	2.9%
10	Self-inflicted injuries	1.6%	10	Self-inflicted injuries	2.7%
11	Diabetes mellitus	1.6%	11	Road traffic accidents	2.5%
12	Cirrhosis of the liver	1.5%	12	Hypertensive heart disease	2.4%
13	Measles	1.4%	13	Oesophagus cancer	2.0%
14	Fires	1.2%	14	Cirrhosis of the liver	1.6%
15	Trachea, bronchus, lung cancers	1.1%	15	Diabetes mellitus	1.5%

4.3 Version 2 estimates of YLD for 2000

Incidence and prevalence estimates for selected causes are given in Annex Tables 11 and 12 for WHO subregions. Total YLD by cause and WHO subregion are given in Annex Table 13. Detailed tables for YLD by subregion, cause, sex and age group may also be downloaded from the WHO website at http://www.who.int/evidence/bod.

The ten leading causes of YLD for the world, and for developed and developing countries, are shown in Table 16 below. Leading causes of YLD for males and females are shown in Table 17.

Table 16. Ten leading causes of YLD, Version 2 global estimates for 2000

		% of total YLD
All countries		
1	Unipolar depressive disorders	12.1%
2	Hearing loss, adult onset	4.7%
3	Alcohol use disorders	3.4%
4	Osteoarthritis	3.0%
5	Schizophrenia	2.9%
6	Perinatal conditions	2.8%
7	Bipolar disorder	2.5%
8	Chronic obstructive pulmonary disease	2.4%
9	Congenital anomalies	2.1%
10	Asthma	2.1%

Table 17. Leading causes of YLD in males and females, Version 2 global estimates, 2000

	Males	% total YLD		Females	% total YLD
1	Unipolar depressive disorders	9.7%	1	Unipolar depressive disorders	14.5%
2	Alcohol use disorders	5.7%	2	Hearing loss, adult onset	4.6%
3	Hearing loss, adult onset	4.8%	3	Osteoarthritis	3.5%
4	Violence	3.0%	4	Schizophrenia	2.8%
5	COPD	3.0%	5	Perinatal conditions	2.7%
6	Schizophrenia	2.9%	6	Bipolar disorder	2.5%
7	Perinatal conditions	2.8%	7	Alzheimer and other dementias*	2.3%
8	Bipolar disorder	2.6%	8	Congenital anomalies	2.0%
9	Osteoarthritis	2.4%	9	Migraine	2.0%
10	Asthma	2.3%	10	Anaemia	2.0%
11	Congenital anomalies	2.2%	11	Asthma	1.9%
12	Road traffic accidents	2.2%	12	COPD	1.8%
13	Protein-energy malnutrition	1.9%	13	Protein-energy malnutrition	1.7%
14	Alzheimer and other dementias*	1.8%	14	Panic disorder	1.6%
15	Falls	1.8%	15	Cataracts	1.6%
16	Cerebrovascular disease	1.7%	16	HIV/AIDS	1.5%
17	HIV/AIDS	1.6%	17	Diabetes mellitus	1.4%
18	lymphatic filariasis	1.6%	18	Cerebrovascular disease	1.4%
19	Drug use disorders	1.6%	19	Road traffic accidents	1.2%
20	Anaemia	1.5%	20	Falls	1.2%

4.4 Version 2 estimates of DALYs for 2000

Total DALYs by cause and WHO subregion are given in Annex Table 15. Detailed tables for deaths, YLL, YLD and DALYs by subregion, cause, sex and age group may also be downloaded from the WHO website at http://www.who.int/evidence/bod. This website also contains detailed tables for DALYs with uniform age weights and 3% discounting (DALY[0.03,0]) and DALYs with uniform age weights and zero discounting (DALY[0,0]) as well as the standard DALY[0.03,1] tables.

The leading causes of DALYs worldwide for the year 2000 are shown in Table 18. Perinatal conditions, lower respiratory infections, HIV/AIDS and unipolar depressive disorders are the four leading causes of DALYs for men and women combined. The global burden of diarrhoeal diseases, conditions arising in the perinatal period, and congenital anomalies have all declined, from a combined total of 16.3% of total DALYs in 1990 to 12.6% in 2000. Reflecting the huge increase in HIV incidence between 1990 and 2000, HIV/AIDS has leapt from the 28th leading cause of DALYS (0.8%) in 1990 to 3rd leading cause (5.5%) in 2000.

Table 18. Ten leading causes of DALYs, Version 2 global estimates for 2000

		% of total DALYs
All countries		
1	Perinatal conditions	6.8%
2	Lower respiratory infections	6.3%
3	HIV/AIDS	5.5%
4	Unipolar depressive disorders	4.5%
5	Diarrhoeal diseases	4.4%
6	Ischaemic heart disease	4.0%
7	Cerebrovascular disease	3.1%
8	Malaria	2.9%
9	Road traffic accidents	2.6%
10	Tuberculosis	2.4%

The total DALYs for perinatal conditions, lower respiratory infections and HIV/AIDS are similar in magnitude for men and women (Table 19). A more important sex difference is for depression, which is the fourth leading cause of disease burden in women but ranks seventh for men. Road traffic accidents are a leading cause of overall disease and injury burden in men (3.5%) but not in women (1.7%). Indeed, when DALYs rather than deaths are considered, the public health importance of injuries becomes more apparent. In parts of South Asia, Eastern Europe and the Western Pacific, 20% or more of the entire disease and injury burden is due to injuries alone.

Figure 13 highlights the marked contrast in epidemiological patterns between rich and poor regions of the world, even more so than comparisons based on deaths. Thus in the more developed countries, the share of disease burden due to communicable, maternal, perinatal and nutritional conditions is typically around 5%, compared with 70-75% in Africa (not shown). Specifically, the leading causes of disease burden in Africa in 2000 were HIV/AIDS (20.6%), malaria (10.1%) and acute lower respiratory infections (8.6%), compared with ischaemic heart disease, depression, alcohol dependence and stroke in the developed countries. Leading causes of DALYs for each of the 6 WHO regions are shown in Table 20.

Table 19. Leading causes of DALYs in males and females, Version 2 global estimates, 2000

	Males	% total DALYs		Females	% total DALYs
1	Perinatal conditions	7.1%	1	Perinatal conditions	6.4%
2	Lower respiratory infections	6.3%	2	Lower respiratory infections	6.2%
3	HIV/AIDS	5.4%	3	HIV/AIDS	5.6%
4	Ischaemic heart disease	4.4%	4	Unipolar depressive disorders	5.6%
5	Diarrhoeal diseases	4.2%	5	Diarrhoeal diseases	4.5%
6	Road traffic accidents	3.5%	6	Ischaemic heart disease	3.5%
7	Unipolar depressive disorders	3.4%	7	Malaria	3.2%
8	Cerebrovascular disease	3.0%	8	Cerebrovascular disease	3.2%
9	Tuberculosis	2.9%	9	Congenital anomalies	2.0%
10	Malaria	2.6%	10	Measles	2.0%
11	COPD	2.2%	11	Tuberculosis	1.9%
12	Alcohol use disorders	2.2%	12	COPD	1.8%
13	Violence	2.1%	13	Hearing loss, adult onset	1.8%
14	Congenital anomalies	1.9%	14	Road traffic accidents	1.7%
15	Measles	1.8%	15	Osteoarthritis	1.4%
16	Hearing loss, adult onset	1.7%	16	Self-inflicted injuries	1.2%
17	Self-inflicted injuries	1.5%	17	Protein-energy malnutrition	1.2%
18	Falls	1.3%	18	Diabetes mellitus	1.2%
19	Cirrhosis of the liver	1.3%	19	Schizophrenia	1.1%
20	Protein-energy malnutrition	1.1%	20	Anaemia	1.0%

Figure 13. Proportion of DALYs attributable to Group I, II and III causes, by subregion, 2000

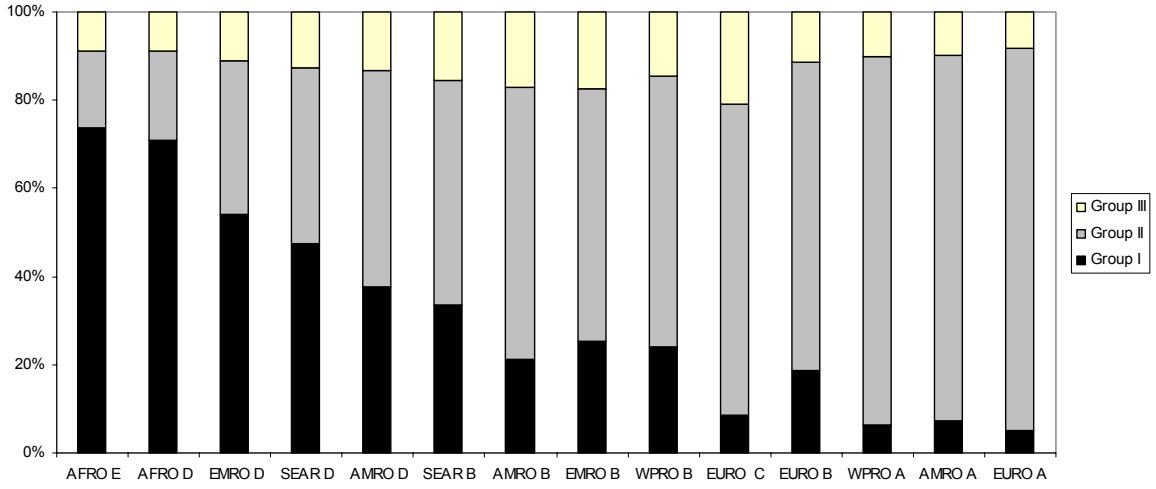


Table 20. Leading causes of DALYs in WHO regions, Version 2 global estimates for 2000

	African Region (AMRO)	% total DALYs		American Region (AMRO)	% total DALYs
1	HIV/AIDS	17.8%	1	Unipolar depressive disorders	8.0%
2	Malaria	10.3%	2	Perinatal conditions	5.0%
3	Lower respiratory infections	8.4%	3	Violence	4.7%
4	Perinatal conditions	6.3%	4	Ischaemic heart disease	4.5%
5	Diarrhoeal diseases	6.1%	5	Alcohol use disorders	4.3%
6	Measles	4.6%	6	Road traffic accidents	3.2%
7	Tuberculosis	2.4%	7	Cerebrovascular disease	2.8%
8	Whooping cough	1.9%	8	Congenital anomalies	2.5%
9	Road traffic accidents	1.8%	9	Diabetes mellitus	2.3%
10	Protein-energy malnutrition	1.6%	10	Lower respiratory infections	2.3%
11	War	1.5%	11	COPD	2.0%
12	Violence	1.4%	12	Diarrhoeal diseases	2.0%
13	Unipolar depressive disorders	1.2%	13	Hearing loss, adult onset	1.8%
14	Tetanus	1.1%	14	Asthma	1.8%
15	Congenital anomalies	1.1%	15	HIV/AIDS	1.6%
	Eastern Mediterranean (EMRO)	**% total DALYs**		**European Region (EURO)**	**% total DALYs**
1	Perinatal conditions	9.3%	1	Ischaemic heart disease	10.5%
2	Lower respiratory infections	8.6%	2	Cerebrovascular disease	6.8%
3	Diarrhoeal diseases	7.6%	3	Unipolar depressive disorders	6.1%
4	Ischaemic heart disease	3.9%	4	Alzheimer and other dementias*	3.0%
5	Unipolar depressive disorders	3.5%	5	Alcohol use disorders	2.9%
6	Congenital anomalies	3.2%	6	Hearing loss, adult onset	2.6%
7	Road traffic accidents	2.8%	7	COPD	2.4%
8	Measles	2.4%	8	Road traffic accidents	2.4%
9	Tuberculosis	2.2%	9	Osteoarthritis	2.4%
10	Whooping cough	1.9%	10	Self-inflicted injuries	2.3%
11	Cerebrovascular disease	1.7%	11	Lower respiratory infections	2.3%
12	Protein-energy malnutrition	1.6%	12	Trachea, bronchus, lung cancers	2.2%
13	Hearing loss, adult onset	1.5%	13	Perinatal conditions	2.0%
14	Malaria	1.4%	14	Cirrhosis of the liver	1.7%
15	Tetanus	1.4%	15	Violence	1.6%
	South East Asian Region (SEARO)	**% total DALYs**		**Western Pacific Region (WPRO)**	**% total DALYs**
1	Perinatal conditions	9.5%	1	Cerebrovascular disease	6.0%
2	Lower respiratory infections	7.6%	2	Unipolar depressive disorders	6.0%
3	Diarrhoeal diseases	5.6%	3	Perinatal conditions	5.6%
4	Unipolar depressive disorders	4.7%	4	COPD	5.2%
5	Ischaemic heart disease	4.7%	5	Lower respiratory infections	4.5%
6	Tuberculosis	3.7%	6	Road traffic accidents	3.4%
7	HIV/AIDS	2.9%	7	Ischaemic heart disease	2.8%
8	Road traffic accidents	2.7%	8	Self-inflicted injuries	2.5%
9	Cerebrovascular disease	2.3%	9	Congenital anomalies	2.4%
10	Congenital anomalies	2.1%	10	Hearing loss, adult onset	2.3%
11	Hearing loss, adult onset	2.1%	11	Alcohol use disorders	2.3%
12	Measles	1.7%	12	Tuberculosis	2.1%
13	COPD	1.7%	13	Osteoarthritis	1.9%
14	Self-inflicted injuries	1.6%	14	Stomach cancer	1.8%
15	Fires	1.5%	15	Diarrhoeal diseases	1.8%

5. Conclusions

This discussion paper has summarised the methods, data sources and Version 2 results for the Global Burden of Disease 2000 project. Version 2 estimates of the global burden of disease in the year 2000 underlie the comparative risk assessments for 20 major risk factors and cost effectiveness analyses published in the World Health Report 2002. Over the next 12 months, work will continue on the revision of YLD and YLL estimates: Version 3 estimates will contribute to the analyses of health system performance to be published in the World Health Report 2003.

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ANNEX TABLES

ANNEX TABLES

Annex Table 1. Regional reporting categories for Global Burden of Disease 2000 project:: WHO regions and 14 subregions.

WHO region	Mortality stratum	WHO Member States
AFRO	D	Algeria, Angola, Benin, Burkina Faso, Cameroon, Cape Verde, Chad, Comoros, Equatorial Guinea, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Madagascar, Mali, Mauritania, Mauritius, Niger, Nigeria, Sao Tome And Principe, Senegal, Seychelles, Sierra Leone, Togo
AFRO	E	Botswana, Burundi, Central African Republic, Congo, Côte d'Ivoire, Democratic Republic Of The Congo, Eritrea, Ethiopia, Kenya, Lesotho, Malawi, Mozambique, Namibia, Rwanda, South Africa, Swaziland, Uganda, United Republic of Tanzania, Zambia, Zimbabwe
AMRO	A	Canada, United States Of America, Cuba
AMRO	B	Antigua And Barbuda, Argentina, Bahamas, Barbados, Belize, Brazil, Chile, Colombia, Costa Rica, Dominica, Dominican Republic, El Salvador, Grenada, Guyana, Honduras, Jamaica, Mexico, Panama, Paraguay, Saint Kitts And Nevis, Saint Lucia, Saint Vincent And The Grenadines, Suriname, Trinidad And Tobago, Uruguay, Venezuela
AMRO	D	Bolivia, Ecuador, Guatemala, Haiti, Nicaragua, Peru
EMRO	B	Bahrain, Cyprus, Iran (Islamic Republic Of), Jordan, Kuwait, Lebanon, Libyan Arab Jamahiriya, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Tunisia, United Arab Emirates
EMRO	D	Afghanistan, Djibouti, Egypt, Iraq, Morocco, Pakistan, Somalia, Sudan, Yemen
EURO	A	Andorra, Austria, Belgium, Croatia, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Luxembourg, Malta, Monaco, Netherlands, Norway, Portugal, San Marino, Slovenia, Spain, Sweden, Switzerland, United Kingdom
EURO	B	Albania, Armenia, Azerbaijan, Bosnia And Herzegovina, Bulgaria, Georgia, Kyrgyzstan,Poland, Romania, Slovakia, Tajikistan, The Former Yugoslav Republic Of Macedonia, Turkey, Turkmenistan, Uzbekistan, Yugoslavia
EURO	C	Belarus, Estonia, Hungary, Kazakhstan, Latvia, Lithuania, Republic of Moldova, Russian Federation, Ukraine
SEARO	B	Indonesia, Sri Lanka, Thailand
SEARO	D	Bangladesh, Bhutan, Democratic People's Republic Of Korea, India, Maldives, Myanmar, Nepal
WPRO	A	Australia, Japan, Brunei Darussalam, New Zealand, Singapore
WPRO	B	Cambodia, China, Lao People's Democratic Republic, Malaysia, Mongolia, Philippines, Republic Of Korea, Viet Nam
		Cook Islands, Fiji, Kiribati, Marshall Islands, Micronesia (Federated States Of), Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu

Annex Table 2. Regional epidemiological analysis categories for Global Burden of Disease 2000 project:: GBD regions and 17 subregions.

GBD region	Mortality stratum	Region code	WHO Member States	Reporting subregion
AFRO	D	1	Algeria, Angola, Benin, Burkina Faso, Cameroon, Cape Verde, Chad, Comoros, Equatorial Guinea, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Madagascar, Mali, Mauritania, Mauritius, Niger, Nigeria, Sao Tome And Principe, Senegal, Seychelles, Sierra Leone, Togo,	AFRO D
			Djibouti, Somalia, Sudan	EMRO D
AFRO	E	2	Botswana, Burundi, Central African Republic, Congo, Côte d'Ivoire, Democratic Republic Of The Congo, Eritrea, Ethiopia, Kenya, Lesotho, Malawi, Mozambique, Namibia, Rwanda, South Africa, Swaziland, Uganda, United Republic of Tanzania, Zambia, Zimbabwe	AFRO E
AMRO	A	3	Canada, United States Of America	AMRO A
AMRO	B	4	Antigua And Barbuda, Argentina, Bahamas, Barbados, Belize, Brazil, Chile, Colombia, Costa Rica, Dominica, Dominican Republic, El Salvador, Grenada, Guyana, Honduras, Jamaica, Mexico, Panama, Paraguay, Saint Kitts And Nevis, Saint Lucia, Saint Vincent And The Grenadines, Suriname, Trinidad And Tobago, Uruguay, Venezuela	AMRO B
			Cuba	AMRO A
AMRO	D	5	Bolivia, Ecuador, Guatemala, Haiti, Nicaragua, Peru	AMRO D
EMRO	B	6	Bahrain, Cyprus, Iran (Islamic Republic Of), Jordan, Kuwait, Lebanon, Libyan Arab Jamahiriya, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Tunisia, United Arab Emirates	EMRO B
EMRO	D	7	Egypt, Iraq, Morocco, Yemen	EMRO D
EURO	A	8	Andorra, Austria, Belgium, Croatia, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Luxembourg, Malta, Monaco, Netherlands, Norway, Portugal, San Marino, Slovenia, Spain, Sweden, Switzerland, United Kingdom	EURO A
EURO	B1	9	Albania, Bosnia And Herzegovina, Bulgaria, Georgia, Poland, Romania, Slovakia, The Former Yugoslav Republic Of Macedonia, Turkey, Yugoslavia	EURO B
EURO	B2	10	Armenia, Azerbaijan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan	EURO B
EURO	C	11	Belarus, Estonia, Hungary, Kazakhstan, Latvia, Lithuania, Republic of Moldova, Russian Federation, Ukraine	EURO C
SEARO	B	12	Indonesia, Sri Lanka, Thailand	SEARO B
			Malaysia, Philippines	WPRO B
			Brunei Darussalam, Singapore	WPRO A
SEARO	D	13	Bangladesh, Bhutan, India, Maldives, Nepal	SEARO D
			Afghanistan, Pakistan	EMRO D
WPRO	A	14	Australia, Japan, New Zealand	WPRO A
WPRO	B1	15	China, Mongolia, Republic Of Korea	WPRO B
			DPR Korea	SEARO D
WPRO	B2	16	Cambodia, Lao People's Democratic Republic, Viet Nam	WPRO B
			Myanmar	SEARO D
WPRO	B3	17	Cook Islands, Fiji, Kiribati, Marshall Islands, Micronesia (Federated States Of), Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu	WPRO B

Annex Table 3: GBD2000 cause categories and ICD codes

Code	GBD Cause Name	ICD-9 code	ICD-10 code
U000	**All Causes**		
U001	**I. Communicable, maternal, perinatal and nutritional conditions**	001-139, 243, 260-269,*279.5*, 280-281, 285.9, 320-323, 381-382,460-465, 466, 480-487, 614-616, 630-676, 760-779	A00-B99, G00-G04, N70-N73, J00-J06, J10-J18, J20-J22, H65-H66, O00-O99, P00-*P96*, E00-E02, E40-E46, E50, D50-D53, D64.9, E51-64
U002	**A. Infectious and parasitic diseases**	001-139, *279.5*, 320-323, 614-616, 771.3	A00-B99, G00, G03-G04, N70-N73
U003	1. **Tuberculosis**	010-018, 137	A15-A19, B90
U004	2. **Sexually transmitted diseases excluding HIV**	090-099, 614-616	A50-A64, N70-N73
U005	a. Syphilis	090-097	A50-A53
U006	b. Chlamydia	-	A55-A56
U007	c. Gonorrhoea	098	A54
U008	Other STDs	099, 614-616	A57-A64, N70-N73
U009	3. **HIV/AIDS**	279.5 (=042-044)	B20-B24
U010	4. **Diarrhoeal diseases**	001, 002, 004, 006-009	*A00, A01,A03, A04*, A06-A09
U011	5. **Childhood-cluster diseases**	032, 033, 037, 045, 055, 138, 771.3	A33-A37, A80, B05, B91
U012	a. Pertussis	033	A37
U013	b. Poliomyelitis	045, 138	A80,B91
U014	c. Diphtheria	032	A36
U015	d. Measles	055	B05
U016	e. Tetanus	037, 771.3	A33-A35
U017	6. **Meningitis**	036, 320-322	A39, G00, G03
U018	7. **Hepatitis B**	070.2-070.9	B16-B19 (minus B17.1, B18.2)
U019	**Hepatitis C**	-	B17.1, B18.2
U020	8. **Malaria**	084	B50-B54
U021	9. **Tropical-cluster diseases**	085, 086, 120, 125.0, 125.1, 125.3	B55-B57, B65, B73, B74.0-B74.2
U022	a. Trypanosomiasis	086.3, 086.4, 086.5,	B56
U023	b. Chagas disease	086.0, 086.1, 086.2, 086.9	B57
U024	c. Schistosomiasis	120	B65
U025	d. Leishmaniasis	085	B55
U026	e. Lymphatic filariasis	125.0, 125.1	B74.0-B74.2
U027	f. Onchocerciasis	125.3	B73
U028	10. **Leprosy**	030	A30
U029	11. **Dengue**	061	A90-A91
U030	12. **Japanese encephalitis**	062.0	A83.0
U031	13. **Trachoma**	076	A71
U032	14. **Intestinal nematode infections**	126-129	*B76-B81*
U033	a. Ascariasis	127.0	B77
U034	b. Trichuriasis	127.3	B79
U035	c. Hookworm disease (Ancylostomiasis and necatoriasis)	126	B76
U036	Other intestinal infections	127.1, 127.2, 127.4-127.9, 128, 129	B78, B80,B81

Annex Table 3 (continued): GBD2000 cause categories and ICD codes

Code	GBD Cause Name	ICD-9 code	ICD-10 code
U037	Other infectious diseases	003, 005, 020-027, 031, 034, 035, 038-041, 046-049, 050-054, 056-057, 060, 062.1-066, 070.0-070.1, 071-075, 077-079, 080-083, 087-088, 100-104, 110-118, 121-124, 125.2, 125.4, 125.5, 125.6, 125.7, 125.9, 130-136, 139, 323	A02,A05,A20-A28,A31,A32,A38,A40-A49,A65-A70,A74-A79,A81,A82,A83.1-A83.9,A84-A89,A92-A99,B00-B04,B06-B15,B25-B49,B58-B60,B64,B66-B72,B74.3-B74.9,B75,B82-B89,B92-B99, G04
U038	**B. Respiratory infections**	460-466, 480-487, 381-382	J00-J06, J10-J18, J20-J22, H65-H66
U039	1. Lower respiratory infections	466, 480-487	J10-J18, J20-J22
U040	2. Upper respiratory infections	460-465	J00-J06
U041	3. Otitis media	381-382	H65-H66
U042	**C. Maternal conditions**	630-676	O00-O99
U043	1. Maternal haemorrhage	640, 641, 666	O44-O46, O67, O72
U044	2. Maternal sepsis	670	O85-O86
U045	3. Hypertensive disorders of pregnancy	642	O10-O16
U046	4. Obstructed labour	660	O64-O66
U047	5. Abortion	630-639	O00-O07
U048	Other maternal conditions	643-659, 661-665, 667-669, 671-676	O20-O43,O47-O63,O68-O71,O73-O75,O87-O99
U049	**D. Conditions arising during the perinatal period**	760-779 minus 771.3	P00-*P96*
U050	1. Low birth weight	764-765	P05-P07
U051	2. Birth asphyxia and birth trauma	767-770	P03, P10-P15, P20-P29
U052	Other perinatal conditions	760-763, 766, 771 (minus 771.3), 772-779	P00-P02, P04, P08, P35-P96
U053	**E. Nutritional deficiencies**	243, 260-269, 280-281, 285.9	E00-E02, E40-E46, E50, D50-D53,D64.9, E51-E64
U054	1. Protein-energy malnutrition	260-263	E40-E46
U055	2. Iodine deficiency	243	E00-E02
U056	3. Vitamin A deficiency	264	E50
U057	4. Iron-deficiency anaemia	280, 285.9	D50, D64.9
U058	Other nutritional disorders	265-269, 281	D51-D53, E51-E64
U059	**II. Noncommunicable diseases**	140-242, 244-259, 270-279 (minus 279.5),282-285 (minus 285.9), 286-319, 324-380, 383-459, 470-478, 490-611, 617-629, 680-759	C00-C97, D00-D48,D55-D64 (minus D 64.9) D65-D89, E03-E07, E10-E16, E20-E34, E65-E88, F01-F99, G06-G98, H00-H61, H68-H93, I00-I99, J30-J98, K00-K92, N00-N64, N75-N98, L00-L98, M00-M99, Q00-Q99
U060	**A. Malignant neoplasms**	140-208	C00-C97
U061	1. Mouth and oropharynx cancers	140-149	C00-C14
U062	2. Oesophagus cancer	150	C15
U063	3. Stomach cancer	151	C16
U064	4. Colon and rectum cancers	153, 154	C18-C21
U065	5. Liver cancer	155	C22
U066	6. Pancreas cancer	157	C25
U067	7. Trachea, bronchus and lung cancers	162	C33-C34
U068	8. Melanoma and other skin cancers	172-173	C43-C44
U069	9. Breast cancer	174, 175	C50
U070	10. Cervix uteri cancer	180	C53

Annex Table 3 (continued): GBD2000 cause categories and ICD codes

Code	GBD Cause Name	ICD-9 code	ICD-10 code
U071	11. Corpus uteri cancer	179, 182	C54-C55
U072	12. Ovary cancer	183	C56
U073	13. Prostate cancer	185	C61
U074	14. Bladder cancer	188	C67
U075	15. Lymphomas and multiple myeloma	200-203	C81-C90, C96
U076	16. Leukaemia	204-208	C91-C95
U077	Other malignant neoplasms	152, 156, 158-161, 163-171,181, 184, 186-187, 189-199	C17,C23,C24,C26-C32, C37-C41,C45-C49, C51,C52,C57-C60,C62-C66,C68-C80,C97
U078	**B. Other neoplasms**	210-239	D00-D48
U079	**C. Diabetes mellitus**	250	E10-E14
U080	**D. Endocrine disorders**	240-242, 244-246, 251-259, 270-279 (minus 274, 279.5),282-285 (minus 285.9), *286*-289	*D55-D64 (minus D64.9),D65-D89, E03-E07, E15-E16, E20-E34, E65-E88*
U081	**E. Neuro-psychiatric conditions**	290-319, 324-359	F01-F99, G06-G98
U082	1. Unipolar depressive disorders	296.1, 311	F32-F33
U083	2. Bipolar affective disorder	296 (minus 296.1)	F30-F31
U084	3. Schizophrenia	295	F20-F29
U085	4. Epilepsy	345	G40-G41
U086	5. Alcohol use disorders	291, 303, 305.0	F10
U087	6. Alzheimer and other dementias	290, 330, 331	F01, F03, G30-G31
U088	7. Parkinson disease	332	G20-G21
U089	8. Multiple sclerosis	340	G35
U090	9. Drug use disorders	304, 305.2-305.9	F11-F16, F18-F19
U091	10. Post-traumatic stress disorder	308-309	*F43.1*
U092	11. Obsessive-compulsive disorder	300.3	F42
U093	12. Panic disorder	300.2	F40.0, F41.0
U094	13. Insomnia (primary)	307.4	F51
U095	14. Migraine	346	G43
U096	Mental Retardation attributable to lead exposure	317-319	F70-F79
U097	Other neuropsychiatric disorders	292-294, 297-300.1, 300.4-302, 305.1, 306-307 (minus 307.4), 310, 312-316, 324-326, 333-337, 341-344, 347-349, 350-359	F04-F09,F17,F34-F39,F401-F409,F411-F419, F43(minus F43.1), F44-F50, F52-F69, F80-F99,G06-G12,G23-G25,G36,G37,G44-G98
U098	**F. Sense organ diseases**	360-380, 383-389	H00-H61, H68-H93
U099	1. Glaucoma	365	H40
U100	2. Cataracts	366	H25-H26
U101	3. Vision disorders, age-related	367.4	H524
U102	4. Hearing loss, adult onset	389	H90-H91
U103	Other sense organ disorders	360-364, 367-380 (minus 367.4), 383-388	H00-H21,H27-H35, H43-H61(minus H524),H68-H83, H92-H93
U104	**G. Cardiovascular diseases**	390-459	I00-I99
U105	1. Rheumatic heart disease	390-398	I01-I09
U106	2. Hypertensive heart disease	401-405	I10-I13
U107	3. Ischaemic heart disease	410-414	I20-I25
U108	4. Cerebrovascular disease	430-438	I60-I69
U109	5. Inflammatory heart diseases	420, 421, 422, 425	I30-I33, I38, I40, I42

Annex Table 3 (continued): GBD2000 cause categories and ICD codes

Code	GBD Cause Name	ICD-9 code	ICD-10 code

U110	Other cardiovascular diseases	415-417, 423-424, 426-429, 440-448, 451-459	I00, I26-I28, I34-I37, I44-I51, I70-I99
U111	**H. Respiratory diseases**	470-478, 490-519	J30-J98
U112	1. Chronic obstructive pulmonary disease	490-492, 495-496	J40-J44
U113	2. Asthma	493	J45-J46
U114	Other respiratory diseases	470-478, 494, 500-508, 510-519	J30-J39,J47-J98
U115	**I. Digestive diseases**	530-579	K20-*K92*
U116	1. Peptic ulcer disease	531-533	K25-K27
U117	2. Cirrhosis of the liver	571	K70, K74
U118	3. Appendicitis	540-543	K35-K37
U119	Other digestive diseases	530, 534-537, 550-553, 555-558, 560-570, 572-579	K20-K22,K28-K31,K38,K40-K66,K71-K73,K75-K92
U120	**J. Genito-urinary diseases**	580-611, 617-629	N00-N64, N75-N98
U121	1. Nephritis and nephrosis	580-589	N00-N19
U122	2. Benign prostatic hypertrophy	600	N40
U123	Other genitourinary system diseases	590-599, 601-611, 617-629	N20-N39, N41-N64, N75-N98
U124	**K. Skin diseases**	680-709	L00-L98
U125	**L. Musculoskeletal diseases**	710-739, 274	M00-M99
U126	1. Rheumatoid arthritis	714	M05-M06
U127	2. Osteoarthritis	715	M15-M19
U128	3. Gout	274	M10
U129	4. Low back pain	720-724 (minus 721.1, 722.0, 722.4)	M45-M48, M54 (minus M54.2)
U130	Other musculoskeletal disorders	710-713, 716-719,721.1, 722.0, 722.4, 723, 725-739	M00-M02, M08, M11-M13, M20-M43, M50-M53, M54.2, M55-M99
U131	**M. Congenital anomalies**	740-759	Q00-Q99
U132	1. Abdominal wall defect	*756.7*	*Q79.2-Q79.5*
U133	2. Anencephaly	740.0	Q00
U134	3. Anorectal atresia	751.2	Q42
U135	4. Cleft lip	749.1	Q36
U136	5. Cleft palate	749.0	Q35, Q37
U137	6. Oesophageal atresia	750.3	Q39.0-Q39.1
U138	7. Renal agenesis	753.0	Q60
U139	8. Down syndrome	758.0	Q90
U140	9. Congenital heart anomalies	745-747	Q20-Q28
U141	10. Spina bifida	741	Q05
U142	Other Congenital anomalies	740.1, 740.2, 742-744, 748, 749.2, 750.0, 750.1, 750.2, 750.4-751.1, 751.3-751.9, 752, 753.1-753.9, 754, 755, 756.0-756.6, 756.8, 756.9, 757, 758.1-758.9, 759	Q01-Q04, Q06-Q18, Q30-Q34, Q38, Q392-Q399, Q40-Q41, Q43-Q56, Q61-Q78, Q790, Q791, Q796, Q798, Q799, Q80-Q89, Q91-Q99
U143	**N. Oral conditions**	520-529	K00-K14
U144	1. Dental caries	521.0	K02
U145	2. Periodontal disease	523	K05
U146	3. Edentulism	-	-
U147	Other oral diseases	520, 521.1-521.9, 522, 524-529	K00, K01,K03,K04,K06-K14

Annex Table 3 (continued): GBD2000 cause categories and ICD codes

Code	GBD Cause Name	ICD-9 code	ICD-10 code
U148	**III. Injuries**	E800-999	V01-Y89

U149	**A.** Unintentional injuries	E800-949	V01-X59, Y40-Y86, Y88, Y89
U150	1. Road traffic accidents	E810-819, E826-829, E929.0	**See below**
U151	2. Poisonings	E850-869	X40-X49
U152	3. Falls	E880-888	W00-W19
U153	4. Fires	E890-899	X00-X09
U154	5. Drownings	E910	W65-W74
U155	6. Other unintentional injuries	E800-E807, E820-E848, E870-E879, E900-E909, E911-E949	*Rest of V, W20*-W64, W75-W99, X10-X39, X50-X59, Y40-Y86, Y88,Y89
U156	**B. Intentional injuries**	E950-978, 990-999	X60-Y09, Y35-Y36, Y870, Y871
U157	1. Self-inflicted injuries	E950-959	X60-X84, Y870
U158	2. Violence	E960-969	X85-Y09, Y871
U159	3. War	E990-999	Y36
U160	Other intentional injuries	E970-E978	Y35

FOR COUNTRIES WITH 3-DIGIT ICD10 DATA, for Road traffic accidents use:

V01-V04, V06, V09-V80, V87, V89, V99

FOR COUNTRIES WITH 4-DIGIT ICD10 DATA, for Road traffic accidents use:

V01.1-V01.9	V48.4-V48.9
V02.1-V02.9	V49.4-V49.9
V03.1-V03.9	V50.4-V50.9
V04.1-V04.9	V51.4-V51.9
V06.1-V06.9	V52.4-V52.9
V09.2	V53.4-V53.9
V09.3	V54.4-V54.9
V10.4-V10.9	V55.4-V55.9
V11.4-V11.9	V56.4-V56.9
V12.3-V12.9	V57.4-V57.9
V13.3-V13.9	V58.4-V58.9
V14.3-V14.9	V59.4-V59.9
V15.4-V15.9	V60.4-V60.9
V16.4-V16.9	V61.4-V61.9
V17.4-V17.9	V62.4-V62.9
V18.4-V18.9	V63.4-V63.9
V19.4-V19.6	V64.4-V64.9
V20.3-V20.9	V65.4-V65.9
V21.3-V21.9	V66.4-V66.9
V22.3-V22.9	V67.4-V67.9
V23.3-V23.9	V68.4-V68.9
V24.3-V24.9	V69.4-V69.9
V25.3-V25.9	V70.4-V70.9
V26.3-V26.9	V71.4-V71.9
V27.3-V27.9	V72.4-V72.9
V28.3-V28.9	V73.4-V73.9
V29.4-V29.9	V74.4-V74.9
V30.4.V30.9	V75.4-V75.9
V31.4-V31.9	V76.4-V76.9
V32.4-V32.9	V77.4-V77.9
V33.4-V33.9	V78.4-V78.9
V34.4-V34.9	V79.4-V79.9
V35.4-V35.9	V80.3-V80.5
V36.4-V36.9	V81.1
V37.4-V37.9	V82.1
V38.4-V38.9	V83.0-V83.3
V39.4-V39.9	V84.0-V84.3
V40.4-V40.9	V85.0-V85.3
V41.4-V41.9	V86.0-V86.3
V42.4-V42.9	V87.0-V87.8
V43.4-V43.9	V89.2
V44.4-V44.9	V89.9
V45.4-V45.9	V99
V46.4-V46.9	Y850
V47.4-V47.9	

Annex Table 4: GBD2000 cause categories, sequelae and case definitions

GBD Cause/Sequelae	Case definition	Version[a]
I. Communicable, maternal, perinatal and nutritional conditions		
A1. Tuberculosis	Cases refer to individuals with clinical tuberculosis, normally pulmonary sputum culture positives and extra-pulmonary cases.	2
HIV sero-negative cases	HIV sero-negative cases	
HIV sero-positive cases	HIV sero-positive cases	
A2a. Syphilis	Acute and chronic infection with Treponema pallidum	1
Congenital syphilis	Syphilis in the newborn due to maternal-fetal transmission in utero	
Low birth weight	Birthweight of less than 2500 g	
Primary	Initial infection in adults resulting in primary chancre at the site of inoculation	
Secondary	Disseminated disease, which appears 2-8 weeks after the primary stage and usually marked by a rash	
Tertiary – Neurologic	Late stage of the disease with varied neurological manifestations	
A2b. Chlamydia	Bacterial infection transmitted through vaginally, anally or perinatally with Chlamydia trachomatis (excludes ocular trachoma)	1
Cervicitis	Inflammation of the cervix uteri due to Chlamydia trachomatis	
Neonatal pneumonia	Pneumonia in infants due to infection with Chlamydia.	
Ophthalmia neonatorum	Purulent conjunctivitis in infants less than 30 days, which was acquired during passage through an infected birth canal	
Low birth weight	Birthweight of less than 2500 g	
Pelvic inflammatory disease	Inflammation of the adnexa of the uterus (includes endometritis)	
Ectopic pregnancy	Pregnancy located outside the uterus	
Tubo-ovarian abscess	Abscess located in the fallopian tubes or ovaries	
Chronic pelvic pain	Chronic pelvic pain following reproductive tract infection with Chlamydia	
Infertility	Total of infertility due to chlamydia-related PID and ectopic pregnancy in women and epididymitis in men.	
Symptomatic urethritis	Inflammation of the urethra causing symptoms including dysuria and/or haematuria	
Epididymitis	Inflammation of the sperm ducts	
A2c. Gonorrhoea	Bacterial infection transmitted through vaginally, anally or perinatally with Neisseria gonorrhoea	1
Ophthalmia neonatorum	Purulent conjunctivitis in infants less than 30 days, which was acquired during passage through an infected birth canal	
Low birth weight	Birthweight of less than 2500 g	
Corneal scar -- Blindness	Permanent corneal scar resulting from corneal ulceration due to infection with Neisseria gonorrhoea and leading to blindness	
Corneal scar -- Low vision	Permanent corneal scar resulting from corneal ulceration due to infection with Neisseria gonorrhoea and to low vision	
Cervicitis	Inflammation of the cervix uteri due to Neisseria gonorrhoea	
Pelvic inflammatory disease	Includes both acute and recurrent PID due to gonorrhoea.	
Ectopic pregnancy	Pregnancy located outside the uterus	
Tubo-ovarian abscess	Abscess located in the fallopian tubes or ovaries	
Chronic pelvic pain	Chronic pelvic pain following reproductive tract infection with N gonorrhoea	
Infertility	Total of infertility due to gonorrhoea -related PID and ectopic pregnancy in women and epididymitis in men.	
Symptomatic urethritis	Inflammation of the urethra causing symptoms including dysuria and/or haematuria	
Epididymitis	Inflammation of the sperm ducts	
Stricture	Narrowing of the urethra due to urethritis	
A3. HIV/AIDS		2
HIV cases	HIV sero-positive, not yet progressed to AIDS	
AIDS cases	HIV sero-positive and progressed to AIDS	
A4. Diarrhoeal diseases -- episodes	Episodes of diarrhoea including acute watery diarrhoea, persistent diarrhoea and dysentery. Deaths of children with both measles and diarrhoea or both LRI and diarrhoea are not included in the estimates of diarrhoea mortality.	1

Annex Table 4 (continued): GBD2000 cause categories, sequelae and case definitions

GBD Cause/Sequelae	Case definition	Version[a]
A5a. Pertussis	Acute bacterial infection of the respiratory tract with Bordetella pertussis or parapertussis	2
Episodes	Acute bacterial infection of the respiratory tract with Bordetella pertussis or parapertussis, characterised by paroxysmal, violent coughs followed by high-pitched inspiratory whoop.	
Encephalopathy	Degenerative disease of the brain, which in pertussis is usually a result of hypoxia, leading to mental retardation	
A5b. Poliomyelitis – lameness	Viral infection characterised by acute flaccid paralysis and proven by isolation of polio virus from stool.	2
A5c. Diphtheria	Acute disease caused by toxin-producing *Corynebacterium diphtheriae*	2
Episodes	Acute bacterial disease involving primarily tonsils, pharynx, larynx, nose and other sites, characterised by grayish plaques or membranes with surrounding tissue inflammation.	
Neurological complications	Polyneuritis involving both cranial and peripheral nerve palsies, which are largely reversible.	
Myocarditis	Inflammation of the heart muscle leading to electrocardiographic aberrations and sometimes permanent damage with congestive heart failure, which may be fatal.	
A5d. Measles – episodes	Acute and highly contagious infection with measles virus characterised by red, blotchy rash, fever, cough, coryza and conjunctivitis	2
A5e. Tetanus – episodes	Neonatal: Infection with Clostridium tetani in infants less than 30 days with progressive difficulty and inability to feed because of trismus, generalised stiffness, spasms and opisthotonus.	2
	Non-neonatal: Infection with Clostridium tetani non-neonates with initial localised spasms lead to general rigidity, opisthotonus and "risus sardonicus".	
A6. Meningitis	Acute bacterial disease with sudden onset and fever, intense headache, nausea, vomiting, neck stiffness and – in meningococcal disease – petechial rash with pink macules. The disease must be accompanied by laboratory evidence (in cerebrospinal fluid or blood) of *Neisseria meningitidis, Strep pneumoniae* or *Haemophilus influenzae type B*.	2
Streptococcus pneumoniae – episodes	Acute bacterial disease with sudden onset and fever, intense headache, nausea, vomiting, and neck stiffness. The disease must be accompanied by laboratory evidence (in cerebrospinal fluid or blood) of *Strep pneumoniae.*	
Haemophilus influenzae – Episodes	Acute bacterial disease with sudden onset and fever, intense headache, nausea, vomiting, and neck stiffness. The disease must be accompanied by laboratory evidence (in cerebrospinal fluid or blood) of *Haemophilus influenza type B.*	
Neisseria meningitidis – Episodes	Acute bacterial disease with sudden onset and fever, intense headache, nausea, vomiting, and neck stiffness. The disease must be accompanied by laboratory evidence (in cerebrospinal fluid or blood) of *Neisseria meningitidis.*	
Meningococcaemia without meningitis -- Episodes	Invasion of the bloodstream with Neisseria meningitidis.	
Deafness	At least moderate impairment, where person is able to hear and repeat words using raised voice at 1 metre, RESULTING from meningitis.	
Seizure disorder	Seizures of any type that were present at least 6 months after hospitalisation, RESULTING from meningitis.	
Motor deficit	Spasticity or paresis of one or more limbs, RESULTING from meningitis	
Mental retardation	IQ of 70 or below	
A7a. Hepatitis B – episodes	Inflammation of the liver due to Hepatitis B virus	1
A7b Hepatitis C – episodes	Inflammation of the liver due to Hepatitis C virus	1
A8. Malaria	Infectious disease caused by protozoa of the genus *Plasmodium*	1
Episodes	Attacks of chills, fever, and sweating due to *Plasmodium* infection	
Anaemia	Defined using WHO criteria for mild to very severe anaemia.	
Neurological sequelae	Includes hemiplegia, aphasia, ataxia and cortical blindness.	
A9a. Trypanosomiasis – Episodes	Infection with protozoa of the genus Trypanosoma, excluding T. cruzi	1
A9b. Chagas disease	Infection with Trypanosoma cruzi	2
Infection	Episode of infection with Trypanosoma cruzi	
Cardiomyopathy without congestive heart failure	Disorder of the heart muscle resulting from infection with T. cruzi without congestive heart failure	
Cardiomyopathy with congestive heart failure	Disorder of the heart muscle resulting from infection with T. cruzi without congestive heart failure	
Megaviscera	Dilation of interior organ in the abdominal cavity, particularly of oesophagus and colon due to T. cruzi	
A9c. Schistosomiasis – Infection	Infection and associated direct mortality from schistosomiasis. Does not include estimates of mortality from bladder cancer, cirrhosis or colon cancer that may be related to schistosomiasis.	1
A9d. Leishmaniasis	Infection with flagellate protozoa of the genus Leishmania	1
Visceral	Generalised involvement of the reticulo-endothelial system due to infection with Leishmania	
Cutaneous	Presence of skin lesions (which may ulcerate) due to infection with Leishmania	

Annex Table 4 (continued): GBD2000 cause categories, sequelae and case definitions

GBD Cause/Sequelae	Case definition	Version[a]
A9e. Lymphatic filariasis	Infection with filariae (Wucheria bancrofti and Brugia malayi)	1
Hydrocele > 15cm	Circumscribed collection of fluid in testicle or along the spermatic cord due to filariasis	
Bancroftian lymphoedema	Swelling of subcutaneous tissues due to the prescence of excessive lymph fluid as a result of infection with Wucheria bancrofti	
Brugian lymphoedema	Swelling of subcutaneous tissues due to the prescence of excessive lymph fluid as a result of infection with Brugia malayi	
A9f. Onchocerciasis	Infection with worms of the genus Onchocerca	0
Blindness	Inability to distinguish the fingers of a hand at the distance of 3 metres, or less than 5% of remaining vision as compared to a normally sighted individual as a result of infection with Onchocerca volvulus	
Itching	Itchy dermatitis as a result of infection with Onchocerca volvulus	
Low vision	Corrected visual acuity in the better eye of less than 6/18 but better than or equal to 3/60 due to infection with Onchocerca volvulus	
A10. Leprosy	Chronic disease resulting from infection with Mycobacterium leprae	2
Cases	WHO case definition: Person showing clinical signs of leprosy, with or without bacteriological confirmation of the diagnosis, and requiring chemotherapy	
Disabling leprosy	Grade 1 and 2 of World Health Organization grades of disability for leprosy	
A11. Dengue	Mosquito-born disease caused by viruses of the family Flaviviridae	0
Dengue haemorrhagic fever	Severe manifestation of dengue infection characterised by multiple haemorrhages, and potentially followed by circulatory failure, neurological manifestations and shock.	
A12. Japanese encephalitis	Mosquito-born encephalitis caused by JE virus	0
Episodes	Episode of Japanese encephalitis infection	
Cognitive impairment	Reduced cognitive function resulting from encephalitis due to JE virus	
Neurological sequelae	Neurological deficits resulting from encephalitis due to JE virus	
A13. Trachoma	Cases of follicular or inflammatory trachoma.	0
Blindness	Corrected visual acuity in the better eye of less than 3/60.	
Low vision	Corrected visual acuity in the better eye of less than 6/18 but better than or equal to 3/60.	
A14a. Ascariasis	Infection with worms of the genus Ascaris	0
High intensity infection	Infection resulting in at least 20-40 worms per stool load	
Contemporaneous cognitive deficit	Reduction in cognitive ability in school-age children, which occur only while infection persists. – Provisional definition	
Cognitive impairment	Delayed psychomotor development, impaired performance on language skills, motor skills and co-ordination that is equivalent to a 5-10 point deficit in IQ.	
Intestinal obstruction	Blockage of the intestines due to worm mass	
A14b. Trichuriasis		0
High intensity infection	Infection resulting in at least 250-500 worms per stool load	
Contemporaneous cognitive deficit	Reduction in cognitive ability in school-age children, which occur only while infection persists. – Provisional definition	
Massive dysentery syndrome	Rectal prolapse and/or tenesmus and/or bloody mucoid stools due to carpeting of intestinal mucosa by worms.	
Cognitive impairment	Delayed psychomotor development, impaired performance on language skills, motor skills and co-ordination that is equivalent to a 5-10 point deficit in IQ.	
A14c. Hookworm disease	Ancylostomiasis and necatoriasis	1
High intensity infection	Infection resulting in at least 80-160 worms per stool load	
Anaemia	Anaemia (as under E.4) due to hookworm infection	
Cognitive impairment	Delayed psychomotor development, impaired performance on language skills, motor skills and co-ordination that is equivalent to a 5-10 point deficit in IQ.	
B1. Lower respiratory infections	ICD-10: J12-22	2
Episodes	Episode of lower respiratory infection	
Chronic sequelae	Includes bronchiectasis and impaired lung function as measured by a decrease in FEV.	
B2. Upper respiratory infections	ICD-10: J00-06	2
Episodes	Episode of upper respiratory infection	
Pharyngitis	Inflammation of the pharynx	
B3. Otitis media	Inflammation of the middle ear	0
Episodes	Episodes of acute otitis media.	
Deafness	At least moderate impairment, where person is able to hear and repeat words using raised voice at 1 metre, RESULTING from otitis media.	

Annex Table 4 (continued): GBD2000 cause categories, sequelae and case definitions

GBD Cause/Sequelae	Case definition	Version[a]
C1. Maternal haemorrhage		2
Episodes	All episodes of antepartum and postpartum haemorrhage	
Severe anaemia	Blood haemoglobin level < 10mg/dl following postpartum haemorrhage	
C2. Maternal sepsis		2
Episodes	Major puerperal infection, excluding infection following abortion, minor genital tract infection following delivery and urinary tract infections following deliver	
Infertility	Failure to conceive again after a previous conception (secondary infertility), caused by maternal sepsis	
C3. Hypertensive disorders of pregnancy		2
Episodes	Includes pre-eclampsia and eclampsia.	
C4. Obstructed labour		2
Episodes	Labour with no advance of the presenting part of the fetus despite strong uterine contractions	
Caesarean section for OL	Cases of OL for which CS has been performed	
Stress incontinence	Cases with leaking of urine during coughing or sneezing	
Rectovaginal fistula	Cases with a communication between the vaginal wall and the bladder/the rectum resulting from obstructed labour	
C5. Abortion		2
Episodes	Episodes of unsafe abortion (termination of an unwanted pregnancy either by persons lacking the necessary skills or in an environment lacking the necessary standards or both)	
Infertility	Failure to conceive following unsafe abortion	
D1. Low birth weight – All sequelae	Birthweight below 2500g. Includes small-for-gestational-age infants and premature infants. All developmental sequelae due to low birth weight have been clustered into one outcome, which includes cerebral palsy, mental retardation, epilepsy, hearing loss and visual loss.	1
D2. Birth asphyxia and birth trauma All sequelae	All the developmental sequelae due to birth asphyxia and birth trauma have been clustered into one outcome which includes cerebral palsy, mental retardation, epilepsy, hearing loss and visual loss.	1
E1. Protein-energy malnutrition		2
Wasting	Observed weight for height at least 2 standard deviations below the mean for 0-5 year old children.	
Stunting	Observed height for age at least 2 standard deviations below the mean for 0-5 year old children.	
Developmental disability	Limited physical and mental ability to perform most activities in <u>all</u> of the following areas: recreation, education, procreation or occupation	
E2. Iodine deficiency		2
Total goitre rate (G1 + G2)	TGR (total goitre rate) combining both G1 (a mass in the neck consistent with an enlarged thyroid – grade 1 = palpable but not visible) and G2 (a mass in the neck consistent with an enlarged thyroid – grade 2 = palpable and visible in neutral neck position)	
Mild developmental disability	Any of the following due to iodine deficiency: Bilateral hearing loss, delay of walking ability, mild intellectual impairment	
Cretinoidism	Hypothyroid cretinism: Hypothyroidism and stunting as a RESULT of iodine deficiency Neurological cretinism: Mental deficiency (IQ below 70), deaf-mutism, and spastic paralysis as a RESULT of iodine deficiency	
Cretinism	Some but not all features of full cretinism as a RESULT of iodine deficiency	
E3. Vitamin A deficiency		2
Xerophthalmia	All ocular manifestations of vitamin A deficiency: night blindness, Bitot's spots, corneal xerosis, corneal ulceration and corneal scarring.	
Corneal scar	Permanent corneal scar resulting from corneal ulceration due to Vitamin A deficiency and potentially leading to blindness	
E4. Iron-deficiency anaemia		2
Mild	Haemoglobin of 100-109 g/l in pregnant women, 110-119 g/l in children and adult women and 120-129 g/l in adult men.	
Moderate	Haemoglobin of 70-99 g/l in pregnant women, 80-109 g/l in children and adult women and 90-119 g/l in adult men.	
Severe	Haemoglobin of 40-69 g/l in pregnant women, 50-79 g/l in children and adult women and 60-89 g/l in adult men.	
Cognitive impairment	Delayed psychomotor development, impaired performance on language skills, motor skills and co-ordination that is equivalent to a 5-10 point deficit in IQ.	

Annex Table 4 (continued): GBD2000 cause categories, sequelae and case definitions

GBD Cause/Sequelae	Case definition	Version[a]
II. Noncommunicable diseases		
A. Malignant neoplasms sequelae		2
Diagnosis and primary therapy	Chemotherapy, radiotherapy, surgery	
Control	Clinical observation during control/remission phase	
Preterminal (metastasis)	Metastatic dissemination of the disease	
Terminal	Terminal stage prior to death	
Mastectomy	Mastectomy in 5 year breast cancer survivor	
Infertility	Infertility in 5 year survivor of cervix, uterus or ovary cancer	
Incontinence or impotence	Incontinence or impotence in 5 year survivor of prostate cancer	
Stoma	Stoma in 5 year survivor of digestive system cancer	
C. Diabetes mellitus		2
Cases	Venous plasma concentration of μ 11.1 mmol/l 2 h after a 75g oral glucose challenge	
Diabetic foot	Chronic or recurring diabetic foot ulcers	
Neuropathy	Loss of reflexes and of vibration; damage and dysfunction of sensory, motor or autonomic nerves attributable to diabetes	
Retinopathy – blindness	Retinopathy: Microaneurysms or worse lesions in at least one eye; progressive damage of the small blood vessels of the retina	
	Blindness: Unable to distinguish the fingers of a hand at the distance of 3 meters, or, has less than 5% of remaining vision as compared to a normally sighted individual; visual acuity of less than 3/60, or corresponding visual field loss in the better eye with best possible correction	
Amputation	Surgical elimination of the lower extremity or part of it because of gangrene	
E1. Unipolar depressive disorders		1
Mild episode	Mild major depressive episode (F 32.0 and F 33.0)	
Moderate episode	Moderate major depressive episode (F 32.1 and F 33.1)	
Severe episode	Severe major depressive episode (F 32.2 , F 32.3, F 33.2 and F 33.3)	
Dysthymia	Dysthymia case with no concurrent major depressive episode	
E2. Bipolar affective disorder – cases	Cases that meet ICD 10 criteria	2
E3. Schizophrenia – cases	Cases that meet ICD 10 criteria	2
E4. Epilepsy – cases	Cases meeting ILAE definition.	1
	Cases meeting ICD 10 criteria for alcohol dependence and harmful use (F10.1 and F 10.2), excluding cases with comorbid depressive episode.	
E6. Alzheimer and other dementias – cases	Mild, moderate and severe Alzheimer disease, senile and other dementias.	1
E7. Parkinson disease – cases	Cases meeting clinical criteria for Parkinson disease	1
E8. Multiple sclerosis -- cases	Cases of chronic or intermittent relapsing multiple sclerosis.	1
E9. Drug use disorders	Cases meeting ICD 10 criteria for opioid dependence and harmful use (F 11.1 F 11. 2) or cocaine dependence and harmful use (F 14.1 and F 14.2), excluding cases with comorbid depressive episode.	2
E10. Post-traumatic stress disorder – cases	Cases meeting DSM IV criteria for PTSD, excluding cases with comorbid depressive episode or alcohol and drug use(harmful and/or dependence).	2
E11. Obsessive-compulsive disorder – cases	Cases meeting ICD 10 criteria (F 42), excluding cases with comorbid depressive episode.	2
E12. Panic disorder – cases	Cases meeting ICD 10 criteria for panic disorder (F 41.0) or agoraphobia with panic disorder (F 40.01), excluding cases with comorbid depressive episode.	2
E13. Insomnia (primary)	Cases meeting DSM IV criteria for primary insomnia (307.42) where the insomnia causes problems with usual activities. Cases with comorbid depressive episode or alcohol and drug use(harmful and/or dependence) are excluded.	2
E14. Migraine	Cases meeting IHS definition for migraine.	1
E15. Mild mental retardation attributable to lead exposure	IQ in the range 50-69 attributable to childhood lead exposure.	2
F1. Glaucoma	Cases of primary angle closure glaucoma and primary open angle glaucoma.	1
Blindness	Corrected visual acuity in the better eye of less than 3/60.	
F2. Cataracts	Cases of senile cataract causing progressive visual impairment.	1
Blindness	Corrected visual acuity in the better eye of less than 3/60.	
F3. Vision disorders, age-related	Low vision or blindness due to macular degeneration, refractive errors or other age-related causes. Excludes sight loss due to congenital causes, other diseases or injury.	1
Low vision	Corrected visual acuity in the better eye of less than 6/18 but better than or equal to 3/60.	
Blindness	Corrected visual acuity in the better eye of less than 3/60.	

Annex Table 4 (continued): GBD2000 cause categories, sequelae and case definitions

GBD Cause/Sequelae		Case definition	Version[a]
F4.	Hearing loss, adult onset	Cases of adult onset hearing loss due to ageing or noise exposure. Excludes hearing loss due to congenital causes, infectious diseases, other diseases or injury.	2
	Moderate hearing loss, no aids	Hearing threshold level in the better ear is 41-60 dBHTL (averaged over 0.5, 1, 2, 4kHz). (some difficulty understanding or actively participating in a conversation with one person, great difficulty with more than one person). Person does not use a hearing aid	
	Severe hearing loss, no aids	Hearing threshold level in the better ear is 61 dBHTL or more (averaged over 0.5, 1, 2, 4kHz). (great difficulty or unable to understand or participate in a conversation with one other person). Person does not use a hearing aid	
	Moderate hearing loss, uses aids	Hearing threshold level in the better ear is 41-60 dBHTL (averaged over 0.5, 1, 2, 4kHz). (some difficulty understanding or actively participating in a conversation with one person, great difficulty with more than one person). Person uses a hearing aid	
	Severe hearing loss, uses aids	Hearing threshold level in the better ear is 61 dBHTL or more (averaged over 0.5, 1, 2, 4kHz). (great difficulty or unable to understand or participate in a conversation with one other person). Person uses a hearing aid	
G1.	Rheumatic heart disease	Symptomatic cases of congestive heart failure due to rheumatic heart disease.	0
G2.	Hypertensive heart disease	Symptomatic cases of congestive heart failure due to hypertensive heart disease.	0
G3.	Ischaemic heart disease		2
	Acute myocardial infarction	Definite and possible episodes of acute myocardial infarction according to MONICA study criteria	
	Angina pectoris	Cases of clinically diagnosed angina pectoris or definite angina pectoris according to Rose questionnaire	
	Congestive heart failure	Mild and greater (Killip scale k2-k4)	
G4.	Cerebrovascular disease		2
	First-ever stroke cases	First-ever stroke according to WHO definition (includes subarachnoid haemorrhage but excludes transient ischaemic attacks, subdural haematoma, and haemorrhage or infarction due to infection or tumour).	
	Long-term stroke survivors	Persons who survive more than 28 days after first-ever stroke.	
G5.	Inflammatory heart diseases		0
	Myocarditis	Symptomatic cases of congestive heart failure due to myocarditis.	
	Pericarditis	Symptomatic cases of congestive heart failure due to pericarditis.	
	Endocarditis	Symptomatic cases of congestive heart failure due to endocarditis	
	Cardiomyopathy	Symptomatic cases of congestive heart failure due to cardiomyopathy	
H1.	Chronic obstructive pulmonary disease – Symptomatic cases	Chronic (stable) airways obstruction with FEV1< 1 litre (corresponding to symptomatic disability)	2
H2.	Asthma -- Cases	Reported wheeze in the last 12 months plus current bronchial hyperresponsiveness, defined as a 20% fall in FEV1 with a provoking concentration of histamine (PC20) at 8 mg/ml or less.	1
I1.	Peptic ulcer disease	Individuals with peptic ulcers, most of whom have recurrent intermittent symptoms.	0
	Cases with antibiotic treatment	Active gastric or peptic duodenal ulcer receiving appropriate antibiotic treatment	
	Cases not treated with antibiotic	Other active gastric or peptic duodenal ulcer. Includes untreated cases and cases receiving symptomatic treatment.	
I2.	Cirrhosis of the liver – Symptomatic cases	Individuals with symptomatic cirrhosis.	0
I3.	Appendicitis -- episodes	Episodes of acute appendicitis (treated or untreated).	0
J1.	Nephritis and nephrosis		0
	Acute glomerulonephritis	Acute episode of glomerulonephritis	
	End-stage renal disease	End-stage renal failure with or without dialysis, excluding diabetic nephropathy and nephropathy due to cancers, congenital conditions and injury	
J2.	Benign prostatic hypertrophy – Symptomatic cases	Individuals with some albeit intermittent symptoms from benign prostatic hypertrophy.	0
L1.	Rheumatoid arthritis -- cases	Definite or classical RA by 1958 ARA or 1987 ACR criteria	2
L2.	Osteoarthritis		2
	Hip	Symptomatic osteoarthritis of the hip, radiologically confirmed as Kellgren-Lawrence grade 2-4.	
	Knee	Symptomatic osteoarthritis of the knee, radiologically confirmed as Kellgren-Lawrence grade 2-4.	
L3.	Gout	Cases of gout (ARA 1977 survey criteria; at least 6 of 11 symptoms) (ref)	1

Annex Table 4 (continued): GBD2000 cause categories, sequelae and case definitions

GBD Cause/Sequelae	Case definition	Version[a]
L4. Low back pain		1
Episode of limiting low back pain	Acute episode of low back pain resulting in moderate or greater limitations to mobility and usual activities. Excludes low back pain due to intervertebral disc displacement or herniation, and low back pain that does not result in some limitations to mobility and usual activities.	
Episode of intervertebral disc displacement or herniation	Episode of intervertebral disc displacement or herniation.	
Chronic intervertebral disc	Disorder of intervertebral disc resulting in pain and disability that does not resolve within 6 weeks following treatment (medical or surgical).	
M1. Abdominal wall defect – cases	Liveborn cases with exomphalos or gastroschisis	*0*
M2. Anencephaly – cases	Liveborn cases with anencephaly	0
M3. Anorectal atresia – cases	Liveborn cases with anorectal atresia	0
M4. Cleft lip – cases	Liveborn cases, includes individuals who have had surgical correction.	0
M5. Cleft palate – cases	Liveborn cases, includes individuals who have had surgical correction.	0
M6. Oesophageal atresia – cases	Liveborn cases with oesophageal atresia	0
M7. Renal agenesis – cases	Liveborn cases with renal agenesis	0
M8. Down syndrome – cases	Liveborn cases with Down syndrome	0
M9. Congenital heart anomalies – cases	Liveborn cases with major congenital malformations	0
M10. Spina bifida -- cases	Liveborn cases with spina bifida aperta (low, medium or high level)	0
N1. Dental caries – episodes	Incidence rates and prevalence are per person, not per tooth, quadrant or sextant.	0
N2. Periodontal disease – cases	Pockets greater than 6 mm deep	0
N3. Edentulism -- cases	Cases of treated and untreated edentulism (absence of all teeth)	0
III. **Injuries – external cause (refer to Annex Table 3 for ICD 9 and ICD 10 definitions)**		
A1. Road traffic accidents	Includes crashes and pedestrian injuries due to motor vehicles.	2
A2. Poisonings	Only one outcome is included for poisonings.	2
A3. Falls	Includes falls resulting from osteoporotic fractures.	2
A4. Fires	Most of the sequelae of fires are due to burns. Some individuals, however, jump from buildings or are otherwise injured due to fires.	2
A5. Drownings	Other than drowning and near-drowning rates, the only other major disabling sequelae from near-drowning included is quadriplegia.	2
A6. Other unintentional injuries	This is not a residual category, but includes injuries due to environmental factors, machinery and electrical equipment, cutting and piercing implements, and various other external causes of unintentional injury.	2
B1. Self-inflicted injuries	Suicide attempts, whether or not resulting in death.	2
B2. Violence	Interpersonal violence, including assault and homicide.	2
B3. War	Injuries and deaths directly attributable to war in combatants and non-combatants. For example, the estimates of mortality include deaths to children and adults from landmines.	1
III. **Injuries - type of injury sequelae**	Injury severe enough to warrant medical attention or that leads immediately to death. In other words, injuries that are severe enough that if an individual had access to a medical facility he or she would seek attention.	
	ICD 9 Code	*ICD 10 Code*
1. Fractures		
Skull—short-term[1]	800 to 801	S02.0/1/7/9, T90.2
Skull—long- term[1]	800 to 801	S02.0/1/7/9, T90.2
Face bones[1]	802	S02.2/6/8
Vertebral column	805	S12, S22.0/1, S32.0/7, T91.1
Rib or sternum[2]	807	S22.2-9
Pelvis[2]	808	S32.1-5/8, T91.2
Clavicle, scapula or humerus[3]	810-812	S42, S49.7
Radius or ulna[3]	813	S52, S59.7, T10, T92.1
Hand bones[3]	814-817	S62, S69.7, T92.2
Femur—short-term[4]	820-821	S72, S79.7
Femur—long-term[4]	820-821	S72, S79.7
Patella, tibia or fibula[4]	822-823	S82.0-4, S82.7/9, S89.7, T12
Ankle[4]	824	S82.5-6/8
Foot bones[4]	825-826	S92, S99.7
2. Injured spinal cord	806 and 952	S14, S24, S34, T06.0/1, T08, T91.3
3. Dislocations		
Shoulder, elbow or hip	831, 832, 835	S43, S73
Other dislocation	830, 833-834, 836-839	S03.0-3, S13, S23, S33, S53, S63.0/1, S83.1-3, S93.1-3, T03, T11.2, T13.2, T14.3, T92.3, T93.3

Annex Table 4 (continued): GBD2000 cause categories, sequelae and case definitions

GBD Cause/Sequelae	Case definition	
III. **Injuries - type of injury sequelae (continued)**	*ICD 9 Code*	*ICD 10 Code*
4. Sprains	840-848	S03.4/5, S16, S29.0, S39.0, S46, S56, S63.5-7, S66, S76, S83.4/7, S86, S93.4/6, S96, T06.4, T11.5, T13.5, T14.6, T92.5, T93.5
5. Intracranial injuries		
Short-term	850-854	S06, T90.5
Long-term	850-854	S06, T90.5
6. Internal injuries	860-869	S25-S27, S35-S37, S39.6, T06.4, T91.4/5
7. Open wound	870, 872-884, 890-894	S01, S08, S11, S15, S21, S31, S41, S45, S51, S55, S61, S65, S71, S75, S81, S85, S91, S95, T01, T11.1/4, T13.5, T14.6, T90.1, T92.5, T93.5
8. Injury to eyes		
Short-term	871, 950	S05, T90.4
Long-term	871, 950	S05, T90.4
9. Amputations		
Thumb	885	S68.0
Finger	886	S68.1/2
Arm	887	S48, S58, S68.3-9, T05.0/2, T11.6
Toe[5]	895	S98.1/2
Foot[5]	896, 897.0-1	S98.0/3/4, T05.3
Leg[5]	897.2-3	S78, S88, T05.4/6, T13.6
10. Crushing	925-929	S07, S17, S28, S38, S47, S57, S67, S77, S87, S97, T04, T14.7, T92.6, T93.6
11. Burns		
Less than 20%—short-term[6]	940-947, 948.0-1	T31.0/1
Less than 20%—long- term[6]	940-947, 948.0-1	T31.0/1
20 to 60%—short-term[6]	948.2-5	T331.2/5
20 to 60%—long-term[6]	948.2-5	T331.2/5
Greater than 60%—short-term[6]	948.6-9	T31.6/9
Greater than 60%—long- term[6]	948.6-9	T31.6/9
12. Injured nerves		
Short-term	951, 953-957	S04, S44, S54, S64, S74, S84, S94, T06.2, T11.3, T13.3, T14.4
Long-term	951, 953-957	S04, S44, S54, S64, S74, S84, S94, T06.2, T11.3, T13.3, T14.4
13. Poisoning	960-979, 980-989	T36-T65, T96-T97

a Version 0 estimates for YLD are based on epidemiological reviews and disease models from the GBD 1990, adjusted for time trends and internal consistency with the 2000 population estimates, and cause-specific and background mortality for the year 2000.
Version 1 estimates for YLD are provisional revised estimates based on new epidemiological reviews and disease models for the year 2000. These estimates may change with further revisions.
Version 2 estimates for YLD are close-to-final estimates based on new epidemiological reviews and disease models for the year 2000.
YLL for all causes based on complete analysis of mortality data for the year 2000.

1 The N-codes 803 and 804 were assigned to fractured skull following the distribution of N-codes 801 and 802.

2 The N-code 809 was assigned to fractured rib, sternum, and pelvis following the distribution of N-codes 807 and 808.

3 The N-codes 818 and 819 were assigned to fractured clavicle, scapula, humerus, radius, ulna and hand bones following the distribution of N-codes 810-817.

4 The N-codes 827 and 828 were assigned to Fractured patella, tibia, fibula, ankle and foot bones following the distribution of N-codes 822-826.

5 The N-codes 897.4 to 897.7 were assigned to Amputated toe, foot and leg following the distribution of N-codes 895, 896 and 897.0-897.3.

6 The N-code 949 was assigned to Bums following the N-codes 940-948. In ICD-10, burns are classified by site (T20–T30) and/or proportion of body surface affected (T31). If there is no information given on the proportion of body surface affected, a decision will have to be made how to map the T20–T30 codes across.

Annex Table 5: Data sources and methods for estimates of all cause mortality by age and sex

Member State	Method for 2000[a]	Vital registration years	Other sources
Afghanistan	q5		Census 79 (sample); National Demographic and Family Guidance Survey 73
Albania	Vital registration adjusted	1950, 1955, 1957-1964, 1980, 1984-2000	Multiple Indicator Cluster Survey 2000
Algeria	q5 45q15	1950-1956, 1964-1965, 1980-1982, 1985-1986, 1998, 2000	Enquête Démographique 70; Enquête sur la Fécondité 70; Enquête Nationale sur la Fécondité 86; Maternal and Child Health Survey 92; Mulptiple Indicator Cluster Survey 95; Mulptiple Indicator Cluster Survey 2000
Andorra	Sub region	1950-1954, 1992, 1994-1998, 2000	
Angola	q5 aids added	1956-1973	Instituto Nacional de estatistica, Familias e aldeias do sul de Angola boletim #12; Mulptiple Indicator Cluster Survey 96
Antigua and Barbuda	q5 45q15	1950-1966, 1969-1978, 1983, 1986-1987, 1990-1999	
Argentina	Projection	1950-1970, 1977-1999	
Armenia	Vital registration adjusted	1981-2000	Demographic and Health Survey 2000
Australia	Vital registration	1950-2000	
Austria	Vital registration	1950-2000	
Azerbaijan	Vital registration adjusted	1981-2000	Multiple Indicator Cluster Survey 2000
Bahamas	Projection adjusted	1965, 1967-1969, 1971-1998	
Bahrain	Vital registration	1980-1982, 1984-2000	Child Health Survey 89; Gulf Family Health Survey 95
Bangladesh	q5 45q15	1996-1997	Contraceptive Prevalence Survey 79; Contraceptive Prevalence Survey 81; Contraceptive Prevalence Survey 83; Contraceptive Prevalence Survey 85; Demographic and Health Survey 93; Demographic and Health Survey 97; Demographic and Health Survey 2000; Population Growth Estimation Experiment 62; Retrospective Survey of Fertility and Mortality 74; World Fertility Survey 75; World Fertility Survey 88
Barbados	Projection adjusted	1950-2000	
Belarus	Vital registration	1981-2000	
Belgium	Vital registration	1950-2000	
Belize	q5 45q15	1950-1998	
Benin	q5 aids added		Demographic and Health Survey 96; Census 92; World Fertility Survey 82
Bhutan	q5		Demographic Sample Survey 84; National Health Survey 94; National Health Survey 2000
Bolivia	q5 aids added	1951-1958, 1965-1966, 1976-1977	Census 76; Census 92; Demographic and Health Survey 89; Demographic and Health Survey 89; Demographic and Health Survey 93; Demographic and Health Survey 98; Encuesta Demografica Nacional 75; National Demographic Survey 80; Encuesta Nacional de Poblacion y Vivienda 88
Bosnia and Herzegovina	q5 45q15	1989-1990, 1991, 1999	
Botswana	q5 aids added	1996-1998	Census 71; Census 81; Census 91; Botswana Family Health Survey I (CPS) 84; Demographic and Health Survey 88; Botswana Family Health Survey III 96; Multiple Indicator Cluster Survey 2000
Brazil	vital registration adjusted	1974-2000	Census 70; Census 80; Demographic and Health Survey 86; Demographic and Health Survey 96; Pesquisa Nacional por Amostra de Domicilios 72; Pesquisa Nacional por Amostra de Domicilios 73; Pesquisa Nacional por Amostra de Domicilios 76; Pesquisa Nacional por Amostra de Domicilios 77; Pesquisa Nacional por Amostra de Domicilios 78; Pesquisa Nacional por Amostra de Domicilios 84; Pesquisa Nacional por Amostra de Domicilios 86
Brunei Darussalam	projection adjusted	1950-1959, 1964-1978, 1981-2000	
Bulgaria	vital registration	1950-2000	
Burkina Faso	q5 aids added		Census 85; Demographic and Health Survey 92; Demographic and Health Survey 98/9; Enquête Démographique 91; Indepth Survey (Oubritenga, Nouna) 94-98; Post-enumeration Survey 76
Burundi	q5 aids added		Census 90; Annuaire statistique de Burundi 92; Demographic and Health Survey 87; Enquête Démographique 70; Enquête Post-censitaire 79

Annex Table 5 (continued): Data sources and methods for estimates of all cause mortality by age and sex

Member State	Method for 2000[a]	Vital registration years	Other sources
Cambodia	q5 aids added		National Health Survey 98; Demographic and Health Survey 2000
Cameroon	q5 aids added		Census 87; Demographic and Health Survey 91; Demographic and Health Survey 98; World Fertility Survey78
Canada	projection	1950-1998	
Cape Verde	q5	1955-1957, 1959-1960, 1966-1975, 1980, 1983-1985, 1990-1991, 1998	Inquérito demográfico e de saúde reprodutiva 98
Central African Republic	q5 aids added		Census 75; Census 88; Demographic and Health Survey 95; Multiple Indicator Cluster Survey 2000
Chad	q5 aids added		Census 93; Demographic and Health Survey 97; Multiple Indicator Cluster Survey 2000
Chile	projection	1950-1999	
China	q5 45q15	1988-2000 (Sample Vital Registration)	Census 90; Census 2000; Disease Surveillance Points 91-99; Fertility Sampling Survey 92; National Survey on Fertility and Birth Control 88; Female Fertility in China: a 1 0/00 Population Survey 82; China 1 0/00 Population Sample Survey 87, 90-94, 96-98; China 1 0/0 Population Sample Survey 95; Child and Maternal Surveillance System 91-98
Colombia	projection adjusted	1950-1979, 1982-1999	Census 73; Census 85; Encuesta Nacional de Prevalencia de Uso de Anticoncepion 78; Demographic and Health Survey 86; Demographic and Health Survey 90; Demographic and Health Survey 95; Demographic and Health Survey 2000; Encuesta Nacional de Hogares 78; Encuesta Nacional de Hogares 80; World Fertility Survey 76
Comoros	q5		Demographic and Health Survey 96; Multiple Indicator Cluster Survey 2000
Congo	q5 aids added		Census 74
Cook Islands	q5 45q15	1951-1960, 1965, 1968, 1971-1973, 1975-1977, 1979-1999	
Costa Rica	vital registration adjusted	1950-2000	
Côte d'Ivoire	q5 aids added		Census 88; Census 98; Demographic and Health Survey 95; Enquête Démographique à Passages Répétés 78; World Fertility Survey 80
Croatia	vital registration	1982-2000	
Cuba	vital registration adjusted	1959-1965, 1968-2000	
Cyprus	vital registration adjusted	1950-1961, 1972-2000	
Czech Republic	vital registration	1980-2000	
Democratic People's Republic of Korea	q5 45q15		Census 93
Democratic Republic of the Congo	q5 aids added		Census 84; Enquête Nationale sur la Situation des Enfants et des Femmes au Zaire 95; Multiple Indicator Cluster Survey 96
Denmark	vital registration	1950-2000	
Djibouti	q5 aids added		Enquête Démographique Intercensitaire 91
Dominica	projection adjusted	1950-1963, 1966-1998	
Dominican Republic	projection adjusted	1950-1988, 1990-1992, 1994-1999	Census 70; Census 81; Encuesta Nacional de Prevalenceia del Uso de Anticonceptivos 83; Demographic and Health Survey 86; Demographic and Health Survey 91; Demographic and Health Survey 96; World Fertility Survey 75; World Fertility Survey 80
Ecuador	vital registration adjusted	1954-1998, 2000	Census 74; Census 82; Census 90; Demographic and Health Survey 87; ENDEMAIN 94; ENDEMAIN 99; Encuesta National de Salud Materno Infantil y Variables Demograficas 82; Encuesta National de Salud Materno Infantil y Variables Demograficas 89; World Fertility Survey 79
Egypt	projection adjusted	1950-1981, 1983-2000	Census 76; Census 86; Contraceptive Prevalence Survey 84; Demographic and Health Survey 88; Demographic and Health Survey 92; Demographic and Health Survey 95; Demographic and Health Survey 2000; Fertility Survey 77; Maternal and Child Health Survey 91; World Fertility Survey 80
El Salvador	projection adjusted	1950-1993, 1995-1999	Census 71; Census 92; Demographic and Health Survey 85; FESAL 88; FESAL 93; FESAL 98; Encuesta de Hogares de Propositos Multiples 92; National Fertility Survey 73
Equatorial Guinea	q5 aids added	1954-1959	Census 83
Eritrea	q5 aids added		Demographic and Health Survey 95

Annex Table 5 (continued): Data sources and methods for estimates of all cause mortality by age and sex

Member State	Method for 2000[a]	Vital registration years	Other sources
Estonia	projection	1981-1999	
Ethiopia	q5 aids added		Census 84; Census 94; Demographic and Health Survey 2000; Demographic Survey 81; Indepth Survey (Butajira) 95-96; National Family and Fertility Survey 90
Fiji	q5 45q15	1950-1987, 1992-1999	
Finland	vital registration	1950-2000	
France	projection	1950-1999	
Gabon	q5 aids added		Demographic and Health Survey 2000
Gambia	q5 45q15 aids added		Census 73; Census 83; Census 93; Gambian Contraceptive Prevalence and Fertility Determinants Survey 90; Indepth Survey (Farafenni) 95-99; Mulptiple Indicator Cluster Survey 2000 - draft report
Georgia	projection adjusted	1981-1992, 1994-2000	
Germany	projection	1969-1978, 1980-1999	
Ghana	q5 aids added	1958, 1960, 1967-1971, 1999	Census 71; Census 84; Demographic and Health Survey 88; Demographic and Health Survey 93; Demographic and Health Survey 98; Indepth Survey (Navrongo) 95-99; World Fertility Survey 79
Greece	projection	1951-1999	
Grenada	q5 45q15	1950-1969, 1974-1978, 1984, 1988, 1994-1996	
Guatemala	q5 45q15	1950-1981, 1983-1988, 1991-1993, 1995-1997	Census 73; Census 81; Demographic and Health Survey 87; Demographic and Health Survey 95; Demographic and Health Survey 99; Encuesta Nacional de Fecundidad, Planificacion Familiar y Comunicacion 77; Encuesta Nacional Socio-Demografica 86; Encuesta Nacional Socio-Demografica 89
Guinea	q5 aids added		Demographic and Health Survey 99; Enquête Démographique et de Santé 92
Guinea-Bissau	q5 aids added	1966, 1969-1970	Multiple Indicator Cluster Survey 2000
Guyana	q5 45q15	1950-1961, 1969-1971, 1974-1977, 1979, 1984-1985, 1993-1996	
Haiti	q5 aids added	1950-1981, 1983	Census 71; Census 82; Contraceptive Prevalence Survey 83; Demographic and Health Survey 94; Demographic and Health Survey 2000; Enquête sur la Mortalité, Morbidité et Utilisation des Services 87; World Fertility Survey 77
Honduras	q5 aids added	1950-1983	Census 74; Census 88; Encuesta Nacional de Epidemiologia y Salud Familiar 87; Encuesta Nacional de Epidemiologia y Salud Familiar 91-2; Encuesta Nacional de Epidemiologia y Salud Familiar 96; Encuesta Nacional de Salud Materno Infantil 84; Encuesta Demografica Nacional 70; Encuesta Demografica Nacional 84; Encuesta Demografica Nacional Retrospectiva 72
Hungary	vital registration	1950-2000	
Iceland	projection adjusted	1950-2000	
India	projection adjusted	1990-1999 (Sample Registration System)	Census 81; National Family Planning Survey 70; Second All-India Family Planning Survey 80; Survey on Infant and Child Mortality 79; National Family Health Survey 92; National Family Health Survey 2000
Indonesia	q5 45q15		Census 71; Census 80; Census 90; Contraceptive Prevalence Survey 87; Demographic and Health Survey 97; Demographic and Health Survey 91; Demographic and Health Survey 94; National Contraceptive Prevalence Survey 87; Susenas 97-2000; World Fertility Survey 76
Iran (Islamic Republic of)	q5 45q15	1983-1984, 1986, 1991, 1994-2000 (partial Vital Registration)	Census 86; Intercensal Population Survey 91; Population Growth Survey 73
Iraq	q5 45q15	1955, 1958-1969, 1976-1977, 1987-1989	Census 87; Fertility Survey 74; Child and Maternal Mortality Survey 1999 (south/centre) Preliminary report 99; Immunization, Diarrhoeal Disease, Maternal and Child Mortality Survey 90
Ireland	projection	1950-1999	
Israel	projection	1953-1998	
Italy	projection	1950-1998	
Jamaica	q5 45q15	1950-1965, 1967-1971, 1975, 1977, 1980-1985, 1989-1991, 1996-1999	Census 82; Contraceptive Prevalence Survey 89; Multiple Indicator Cluster Survey 2000; World Fertility Survey 75

Annex Table 5 (continued): Data sources and methods for estimates of all cause mortality by age and sex

Member State	Method for 2000[a]	Vital registration years	Other sources
Japan	vital registration	1950-2000	
Jordan	q5 45q15	1953-1957, 1959-1974, 1976-1980, 1992	Census 79; Population and Housing Census Survey 94; Demographic and Health Survey 90; Demographic and Health Survey 97; Epi/CDD and Child Mortality Survey 88; Epi/CDD and Child Mortality Survey 90; Jordan Demographic Survey 81; National Fertility Survey 72; Verbal Autopsy Study 95-96; World Fertility Survey 76
Kazakhstan	projection adjusted	1981-1999	Demographic and Health Survey 95; Demographic and Health Survey 99
Kenya	q5 aids added	1960-1963, 1968-1973	Census 69; Census 79; Census89; Demographic and Health Survey 88; Demographic and Health Survey 93; Demographic and Health Survey 98; National Demographic Survey 77; National Demographic Survey 83; World Fertility Survey 77; Welfare Monitoring Survey II 1994
Kiribati	q5 45q15	2000	Census 78; Census 2000
Kuwait	vital registration	1962-1989, 1991-2000	Census 75; Census 80; Child Health Survey 87
Kyrgyzstan	projection adjusted	1981-1999	Demographic and Health Survey 97
Lao People's Democratic Republic	q5 45q15		Census 95; Fertility and Birth Spacing Survey 94; Laos Social Indicator Survey 93; Reproductive Health Survey 2000
Latvia	vital registration	1980-2000	
Lebanon	q5 45q15	1997-1999	National Fertility and Family Planning Survey; Maternal and Child Health Survey 96; Mulptiple Indicator Cluster Survey 2000 - preliminary report
Lesotho	q5 aids added		Census 76; Census 96; Rural Household Consumption and Expenditure Survey 68; Rural Household Consumption and Expenditure Survey 71; World Fertility Survey 77
Liberia	q5 aids added	1970	Census 74; Demographic and Health Survey 86; Population Growth Survey 69; Population Growth Survey 70
Libyan Arab Jamahiriya	q5	1972-1976, 1981	Census 73; Maternal and Child Health Survey 95
Lithuania	vital registration	1981-2000	
Luxembourg	projection adjusted	1950-2000	
Madagascar	q5 aids added	1955, 1957-1961, 1964-1968, 1971-1972	Demographic and Health Survey 92; Demographic and Health Survey 97; National Demographic Survey 66
Malawi	q5 aids added	1971, 1977	Census 77; Census 87; Census 98; Demographic and Health Survey 92; Family Formation Survey 84; National Demographic Survey 82; Population Change Survey 70
Malaysia	projection adjusted	1986,1990-1998	Census 70; Fertility and Family Survey 74
Maldives	projection adjusted	1978-1993, 1995-1998	
Mali	q5 aids added	1976, 1987	Census 76; Demographic and Health Survey 87; Demographic and Health Survey 95
Malta	projection adjusted	1950-2000	
Marshall Islands	q5 45q15	1986-1997	Census 99
Mauritania	q5 aids added	1988	Census 88; World Fertility Survey 81; Maternal and Child Health Survey 1990; Multiple Indicator Cluster Survey 96
Mauritius	vital registration	1957-2000	
Mexico	vital registration adjusted	1950-2000	
Micronesia (Federated States of)	q5 45q15	1986-1994	Census 70; Census 80; Census 94; Demographic and Health Survey 97
Monaco	sub region	1950-1953, 1959, 1963, 1966, 1970, 1981-1983, 1986-1987	
Mongolia	projection adjusted	1987-1989, 1991-2000	National Demographic Survey 94; Reproductive Health Survey 98
Morocco	q5 45q15	1991-93, 1995-1998	Census 82; Contraceptive Prevalence Survey 83; Demographic and Health Survey 87; Demographic and Health Survey 92; Demographic and Health Survey 95; World Fertility Survey 80; Maternal and Child Health Survey 97
Mozambique	q5 aids added	1961-1969, 1971-1973, 1997	Census 70; Census 80; Demographic and Health Survey 97; Indepth Survey (Manhica) 99-98; National Demographic Survey 1991
Myanmar	q5 aids added	1977-1978, 1987-1999 (urban)	Census 83; Population Changes and Fertility Survey 91; National Mortality Survey 99
Namibia	q5 aids added		Demographic and Health Survey 92

Annex Table 5 (continued): Data sources and methods for estimates of all cause mortality by age and sex

Member State	Method for 2000[a]	Vital registration years	Other sources
Nauru	q5 45q15	1965-1968, 1978, 1993-1995	Census 92
Nepal	q5 45q15	1977, 1981, 1987, 1991	Census 71; Census 81; Census 91; Contraceptive Prevalence Survey 81; Demographic and Health Survey 95; Fertility and Family Planning Survey 85; Fertility, Family Planning and Health Survey 91; World Fertility Survey 76
Netherlands	vital registration	1950-2000	
New Zealand	projection	1950-1999	
Nicaragua	vital registration adjusted	1950-1965, 1968-1969, 1973-1978, 1987-1994, 1997-2000	Census 71; Demographic and Health Survey 92; Demographic and Health Survey 98; Encuesta Retrospectiva Demografica Nacional 77; Encuesta Socio-Demografica 85
Niger	q5 aids added		Census 88; Demographic and Health Survey 92; Demographic and Health Survey 98; Multiple Indicator Cluster Survey 2000
Nigeria	q5 aids added		Demographic and Health Survey 90; Demographic and Health Survey 99; Multiple Indicator Cluster Survey 2000; World Fertility Survey 81
Niue	projection adjusted	1950-1961, 1966-1969, 1973, 1975, 1980-2000	
Norway	vital registration	1950-2000	
Oman	q5		Child Health Survey 92; Family Health Survey 95
Pakistan	q5 45q15	1968, 1976-1979, 1984-1993	Census 81; Labour Force and Migration Survey 80; Living Standard Measurement Survey 91; Population Growth Survey II 76; World Fertility Survey 75; Demographic Survey 84; Contraceptive Prevalence Survey 85; Demographic Survey 88; Demographic and Health Survey 90; Demographic Survey 97
Palau	q5 45q15	1985, 1987-1999	
Panama	vital registration adjusted	1950-2000	Census 80; Census 90; Encuesta Demografica Nacional 76; Encuesta Demografica Nacional Retrospectiva 76; World Fertility Survey 75
Papua New Guinea	q5 45q15	1977, 1980, 1987-1998	Census 71; Census 80; Demographic and Health Survey 91; Demographic and Health Survey 96
Paraguay	q5 45q15	1950-1962, 1964-1971, 1974-1987, 1992, 1994, 1998-1999	Census 72; Census 82; Census 92; Demographic and Health Survey 90; Encuesta Demografica Nacional 77; World Fertility Survey 79
Peru	vital registration adjusted	1950-1989, 1999-2000	Census 72; Census 81; Census 93; Contraceptive Prevalence Survey 81; Demographic and Health Survey 86; Demographic and Health Survey 91; Demographic and Health Survey 96; Encuesta Demografica Nacionals 74; Encuesta Demografica Nacional Retrospectiva 76; World Fertility Survey 77
Philippines	projection adjusted	1950-1953, 1956-1998	Census 70; Census 80; Demographic and Health Survey 93; Demographic and Health Survey 98; National Demographic Survey 88; World Fertility Survey 78
Poland	vital registration	1950-2000	
Portugal	vital registration	1950-2000	
Qatar	q5 45q15	1981-1983, 1985-1998, 2000	Child Health Survey 91
Republic of Korea	vital registration adjusted	1957, 1960, 1962-1967, 1977-1980, 1982-2000	Census 70; Census 75; Census 80; Census 85; World Fertility Survey 74
Republic of Moldova	vital registration	1981-2000	Multiple Indicator Cluster Survey 2000
Romania	vital registration	1956-2001	
Russian Federation	vital registration	1980-2000	
Rwanda	q5 aids added		Census 78; Census91; Demographic and Health Survey 92; Demographic and Health Survey 2000; Enquête Démographique 70; National Fertility Survey 83; Socio-demographic Survey 96
Saint Kitts and Nevis	projection adjusted	1950-2000	
Saint Lucia	projection adjusted	1950-1961, 1963, 1968-2000	
Saint Vincent and the Grenadines	projection adjusted	1950-1956, 1960-1964, 1970-1972, 1974, 1977-1998	
Samoa	q5 45q15	1955-1970, 1973-1976, 1978, 1980, 1992-1993	Demographic and vital statistics survey 2000
San Marino	projection adjusted	1962, 1964-1978, 1980-2000	

Annex Table 5 (continued): Data sources and methods for estimates of all cause mortality by age and sex

Member State	Method for 2000[a]	Vital registration years	Other sources
Sao Tome and Principe	q5	1955-1958, 1962-1971, 1977-1979, 1984-1985, 1987	
Saudi Arabia	q5		Child Health Survey 91
Senegal	q5 aids added		Demographic and Health Survey 86; Demographic and Health Survey 92; Demographic and Health Survey 97; Indepth Survey (Bandafassi, Mlomp) 95-99; Multiple Indicator Cluster Survey 2000; World Fertility Survey78
Seychelles	projection adjusted	1952-1959, 1961-2000	
Sierra Leone	q5 aids added		Pilot Census 73; Census 74; Census 85; Multiple Indicator Cluster Survey 2000
Singapore	vital registration	1950-2000	
Slovakia	vital registration	1982-2000	
Slovenia	projection	1982-2000	
Solomon Islands	q5 45q15		Census 86; Census 99
Somalia	q5 aids added		Multiple Indicator Cluster Survey 2000
South Africa	q5 45q15 aids added	1968-1979, 1993-1999	Demographic and Health Survey - Preliminary results 98; Indepth Survey (Agincourt) 95-99
Spain	projection	1950-1998	
Sri Lanka	q5 45q15	1950-1968, 1975-1989, 1991-1996	Census 71; Demographic and Health Survey 87; Demographic and Health Survey 93; World Fertility Survey 75
Sudan	q5 aids added		Census 73; Census 83; Demographic and Health Survey 89-90; Maternal and Child Health Survey 93
Suriname	q5 45q15	1950-1957, 1961-1966, 1971-1973, 1975-1982, 1984-1997	Multiple Indicator Cluster Survey 2000
Swaziland	q5 aids added		Census 66; Census 76; Census 86
Sweden	vital registration	1950-2000	
Switzerland	vital registration	1950-2000	
Syrian Arab Republic	q5 45q15	1983-1984, 1998, 2000	Census 70; Sample census 76; Census 81; Fertility Survey 78; EPI/CDD and Child Mortality Survey 90; Maternal and Child Health Survey 93; Pan Arab Project for Family Health 2001
Tajikistan	projection adjusted	1981-1982, 1985-1996, 1999	Multiple Indicator Cluster Survey 2000
Thailand	vital registration adjusted	1950-2000	Census 70; Census 80; Census 90; Census 2000; Contraceptive Prevalence Survey 81; Contraceptive Prevalence Survey 84; Demographic and Health Survey 87; Survey of Population Change 74; Survey of Population Change 85; Survey of Population Change 89; Survey of Population Change 95; World Fertility Survey 75
The Former Yugoslav Republic of Macedonia	vital registration	1982-2000	
Togo	q5 aids added	1961	Demographic and Health Survey 88; Demographic and Health Survey 98; Enquête Démographique 71
Tonga	q5 45q15	1957-1964, 1966, 1993-1998	
Trinidad and Tobago	projection adjusted	1950-1998	
Tunisia	q5 45q15	1960, 1968-1974, 1976-1980, 1987-2000	Census 75; Census 84; Contraceptive Prevalence Survey 83; Demographic and Health Survey 88; Enquête Nationale Démographique 68; World Fertility Survey 78; Maternal and Child Health Survey 95; Family Health Survey 2002
Turkey	projection adjusted	1967, 1993-1998	Census 70; Census 75; Census 80; Census 85; Census 90; Demographic and Health Survey 93; Demographic and Health Survey 98; National Demographic Survey 66; Population and Health Survey 83; Population and Health Survey 88; World Fertility Survey 78
Turkmenistan	projection adjusted	1981-1982, 1985-1998	Demographic and Health Survey 2000
Tuvalu	q5 45q15	1991-2000	
Uganda	q5 45q15 aids added		Census 69; Census 91; Demographic and Health Survey 88; Demographic and Health Survey 95; Demographic and Health Survey 2000-1; National Integrated Household Survey 92
Ukraine	vital registration	1981-2000	
United Arab Emirates	from nMx		Census 75; Census 80; Family Health Survey 95; Child Health Survey 91; Ministry of Planing estimate

Annex Table 5 (continued): Data sources and methods for estimates of all cause mortality by age and sex

Member State	Method for 2000[a]	Vital registration years	Other sources
United Kingdom	vital registration	1950-2000	
United Republic of Tanzania	q5 45q15 aids added		Census 67; Census 78; Census 88; AMMP data (Hai, Dar es Salaam, Morogoro) 92-99; Demographic and Health Survey 91; Demographic and Health Survey 94; Demographic and Health Survey 96; Demographic and Health Survey 99; National Demographic Survey 73
United States of America	vital registration	1950-2000	
Uruguay	vital registration	1950-1993, 1995-2000	
Uzbekistan	projection adjusted	1981-1999	Multiple Indicator Cluster Survey 2000; Demographic and Health Survey 96
Vanuatu	q5		Census79; Census 89; Census 99
Venezuela	vital registration adjusted	1950-2000	
Viet Nam	q5 45q15		Census 89; Census 99 (3% sample); Demographic and Health Survey 88; Demographic and Health Survey 97; Intercensal Demographic Survey 94
Yemen	q5		Demographic and Health Survey 91; Demographic and Health Survey 97; Maternal and Child Health Survey 94
Yugoslavia	vital registration	1982-1998, 2000	
Zambia	q5 aids added		Census 69; Census 80; Census 90; Demographic and Health Survey 92; Demographic and Health Survey 96; Sample Census of Population 74
Zimbabwe	q5 45q15 aids added	1950, 1952, 1957-1962, 1965-1967, 1969, 1982, 1986, 1990, 1992-1993, 1995	Census 69; Census 82; Census 92; Demographic and Health Survey 88; Demographic and Health Survey 94; Demographic and Health Survey 99; Intercensal Demographic Survey 87; Reproductive Health Survey 84; Intercensal Demographic Survey 97

a. The following gives the explanation for the method used for Member States to estimate the 2000 life table. For more details see Section 3.1.

- vital registration: 2000 vital registration data used.
- projection: time series of life table from vital/ sample vital registration used

  adjusted: the above methods are specified adjusted if a) the child or the adult mortality is adjusted and/or b) moving average is applied
- q5 45q15: uses 5q0 and 45q15 as input to derive the life table using modified logit model with global standard
- q5: uses only the 5q0 input

  aids added: the above 2 methods are specified aids added if the input data are aids free and the number of deaths are added on the output life table.
- from nMx: uses National life table as base
- sub region: uses neighbouring sub regional

Annex Table 6: Data sources and methods for estimation of mortality by cause, age and sex

Country	Vital registration data	Year used	Estimated coverage (%)	Other sources of information	Method	Cause of death distribution pattern used
Afghanistan				a	CODMOD	Egypt 2000 - Iran 2000
Albania	1987-1989, 1992-2000	2000	<75	a	CODMOD	2000
Algeria				a	CODMOD	South Africa 1995
Andorra				b	Based on 1998 data for selected provinces of Spain	Based on 1998 data from Aragon, Navarra and Cataluna, provinces of Spain
Angola				a	CODMOD	South Africa 1995
Antigua and Barbuda	1961-1964, 1966, 1969-1978, 1983, 1985-1995	1993-1995	90-100	a	Vital registration	Vital registration
Argentina	1966-1970, 1977-1999	1999	90-100	a	Vital registration	Vital registration
Armenia	1981-1982, 1985-2000	2000	<75	a	CODMOD	2000
Australia	1950-1999	1999	90-100	b	Vital registration	Vital registration
Austria	1955-2000	2000	90-100	b	Vital registration	Vital registration
Azerbaijan	1981-1982, 1985-2000	2000	<75	a	CODMOD	2000
Bahamas	1969, 1971-1972, 1974-1977, 1979-1981, 1983-1985, 1987, 1993-1997	1995-1997	90-100	a	Vital registration	Vital registration
Bahrain	1985, 1987-1988,1997-2000	2000	75-89	a	Vital registration	Vital registration
Bangladesh				a	CODMOD	Regional pattern - (Searo D)
Barbados	1955-1995	1993-1995	90-100	Preliminary vital registration data for year 2000[a]	Vital registration	Vital registration
Belarus	1981-1982, 1985-2000	2000	90-100	c	Vital registration	Vital registration
Belgium	1954-1996	1996	90-100	b	Vital registration	Vital registration
Belize	1964-1984, 1986-1987, 1989-1991, 1993-1998	1997-1998	90-100	a	Vital registration	Vital registration
Benin				a	CODMOD	South Africa 1995
Bhutan				a	CODMOD	Regional pattern - (Searo D)
Bolivia				a	CODMOD	Peru 2000
Bosnia and Herzegovina	1985-1991, 1999	1999	90-100	a	Vital registration	Vital registration
Botswana	1995-1998			a	CODMOD	South Africa 1995
Brazil	1977-1999	2000	75-89	Preliminary vital registration data for year 2000[a]	CODMOD	2000
Brunei Darussalam	1996-2000	1998-2000	75-89	a	Vital registration	Vital registration
Bulgaria	1964-2000	2000	90-100	a	Vital registration	Vital registration
Burkina Faso				a	CODMOD	South Africa 1995
Burundi				a	CODMOD	South Africa 1995
Cambodia				a	CODMOD	Regional pattern
Cameroon				a	CODMOD	South Africa 1995
Canada	1950-1998	1998	90-100	b	Vital registration	Vital registration
Cape Verde	1980			a	CODMOD	South Africa 1995
Central African Republic				a	CODMOD	South Africa 1995
Chad				a	CODMOD	South Africa 1995
Chile	1954-1999	1999	90-100	a	Vital registration	Vital registration
China	1987-2000	2000	85- 90	DSP[a]	Combination of DSP -VR	Vital registration

Annex Table 6 (continued): Data sources and methods for estimation of mortality by cause, age and sex

Country	Vital registration data	Year used	Estimated coverage (%)	Other sources of information	Method	Cause of death distribution pattern used
Colombia	1953-1970, 1972, 1974-1977, 1979,1981, 1984-1998	1998	75-89	a	CODMOD	1998
Comoros				a	CODMOD	South Africa 1995
Congo				a	CODMOD	South Africa 1995
Cook Islands	1995-2000	1998-2000	90-100	a	Vital registration	Vital registration
Costa Rica	1956-2000	2000	90-100	a	Vital registration	Vital registration
Côte d'Ivoire				Abidjan, Côte d'Ivoire, 1973-1992 Deaths assessed by medical personnel in city hospitals. Source: M. Benjamin Zanou, ENSEA, Abidjan[a]	CODMOD	South Africa 1995
Croatia	1985-2000	2000	75-89	b	Vital registration	Vital registration
Cuba	1959, 1964-1965, 1968-2000	2000	90-100	a	Vital registration	Vital registration
Cyprus	1996-1999	1997-1999	<75	a	CODMOD	1997-1999
Czech Republic	1985-2000	2000	90-100	b	Vital registration	Vital registration
Democratic People's Republic of Korea				a	CODMOD	Mongolia 1994
Democratic Republic of the Congo				a	CODMOD	South Africa 1995
Denmark	1951-1998	1998	90-100	b	Vital registration	Vital registration
Djibouti				a	CODMOD	South Africa 1995
Dominica	1961-1962, 1967-1994	1992-1994	90-100	a	Vital registration	Vital registration
Dominican Republic	1956-1963, 1965-1992, 1994-1998	1998	<75	a	CODMOD	1998
Ecuador	1961, 1963-1975, 1977-2000	2000	<75	a	CODMOD	2000
Egypt	1954-1967,1970-1980,1987, 1991-1992, 1996-2000	2000	75-89	a	CODMOD	2000
El Salvador	1950-1974, 1981-1984, 1990-1993, 1995-1999	1999	<75	a	CODMOD	1999
Equatorial Guinea				a	CODMOD	South Africa 1995
Eritrea	1998-1999			a	CODMOD	South Africa 1995
Estonia	1981-1982, 1985-2000	2000	90-100	c	Vital registration	Vital registration
Ethiopia				a	CODMOD	South Africa 1995
Fiji	1978, 1992-1997, 1999	1996, 1997, 1999	<75	a	Vital registration	Vital registration
Finland	1952-2000	2000	90-100	b	Vital registration	Vital registration
France	1950-1999	1999	90-100	b	Vital registration	Vital registration
Gabon				a	CODMOD	South Africa 1995
Gambia				a	CODMOD	South Africa 1995
Georgia	1981-1982, 1985-1992, 1994-2000	2000	<75	a	CODMOD	2000
Germany	1969-1999	1999	90-100	b	Vital registration	Vital registration
Ghana				a	CODMOD	South Africa 1995
Greece	1956-1999	1999	90-100	b	Vital registration	Vital registration

Annex Table 6 (continued): Data sources and methods for estimation of mortality by cause, age and sex

Country	Vital registration data	Year used	Estimated coverage (%)	Other sources of information	Method	Cause of death distribution pattern used
Grenada	1974-1978, 1984, 1988, 1994-1996	1994-1996	90-100	a	Vital registration	Vital registration
Guatemala	1958-1971, 1974-1981, 1984	1996		Preliminary vital registration data for 1996[a]	Regional pattern	Regional pattern
Guinea				a	CODMOD	South Africa 1995
Guinea-Bissau				a	CODMOD	South Africa 1995
Guyana	1975-1977, 1979, 1984, 1988, 1990, 1993-1996	1994-1996	<75	a	Vital registration	Vital registration
Haiti	1980-1981, 1983			a	CODMOD	Dominican Rep. 1998
Honduras	1966, 1968-1983			a	CODMOD	Nicaragua 1993
Hungary	1955-2000	2000	90-100	c	Vital registration	Vital registration
Iceland	1951-1997	1996-1997	90-100	b	Vital registration	Vital registration
India	1996 - 1998 (Survey of Cause of Death (rural))	1996-1998	90	Urban Medical certification of Cause of Death System - 1995[a]	Proportionate mortality for urban and rural summed up to national estimate	Regional pattern - (Searo D)
Indonesia				a	CODMOD	Regional pattern - (Searo D)
Iran (Islamic Republic of)	1999-2000	2000		a	CODMOD	2000 (10 provinces data)
Iraq				a	CODMOD	Egypt 2000 - Iran 2000
Ireland	1950-1998	1998	90-100	b	Vital registration	Vital registration
Israel	1975-1998	1998	90-100	b	Vital registration	Vital registration
Italy	1951-1998	1998	90-100	b	Vital registration	Vital registration
Jamaica	1960-1961, 1964-1965, 1967-1971, 1975, 1977, 1980-1991.	1991	<75	a	CODMOD	1991
Japan	1950-1999	1999	90-100	b	Vital registration	Vital registration
Jordan	1959-1960,1962-1966, 1968, 1970-1975, 1978-1979			Mortality and causes of death in Jordan 1995-1996: assessment by verbal autopsy. Source: S.A. Khoury, D. Massad, & T. Fardous, Bulletin of the World Health Organization, 1999, 77 (8) [a]	Verbal autopsy data	Verbal autopsy data
Kazakhstan	1981-1982, 1985-1999	1999	75-89	c	CODMOD	1999
Kenya				National in patient morbidity and mortality , 1999, kenya[a]	CODMOD	South Africa 1995
Kiribati				Kiribati, Third National Health Family Planning & Social Welfare Plan 1992-1995, Dec 1991, Ministry of Health Family Planning & Social Welfare, Kiribati[a]	Regional pattern	Regional pattern
Kuwait	1972, 1975-1987, 1993-2000	2000	90-100	a	Vital registration	Vital registration
Kyrgyzstan	1981-1982, 1985-1999	1999	<75	a	CODMOD	1999
Lao People's Democratic Republic				a	CODMOD	Regional pattern - (Searo D)

Annex Table 6 (continued): Data sources and methods for estimation of mortality by cause, age and sex

Country	Vital registration data	Year used	Estimated coverage (%)	Other sources of information	Method	Cause of death distribution pattern used
Latvia	1980-2000	2000	90-100	c	Vital registration	Vital registration
Lebanon	1997-1999		<75	a	CODMOD	Egypt 2000 - Iran 2000
Lesotho				a	CODMOD	South Africa 1995
Liberia				a	CODMOD	South Africa 1995
Libyan Arab Jamahiriya				a	CODMOD	Egypt 2000 - Iran 2000
Lithuania	1981-1982, 1985-2000	2000	90-100	c	Vital registration	Vital registration
Luxembourg	1955-1962, 1965-2000	1998-2000	90-100	b	Vital registration	Vital registration
Madagascar				Antananarivo, Madagascar, 1976-1995 Deaths certified by medical personnel. Source:M Dominique Waltisperger et al., CEPED, Paris[a]	CODMOD	South Africa 1995
Malawi				a	CODMOD	South Africa 1995
Malaysia	1986, 1990-1998	1998		a	CODMOD	Regional pattern
Maldives				a	CODMOD	Regional pattern - (Searo D)
Mali				a	CODMOD	South Africa 1995
Malta	1955-1999	1997-1999	90-100	a	Vital registration	Vital registration
Marshall Islands				a	Regional pattern	Regional pattern
Mauritania				a	CODMOD	South Africa 1995
Mauritius	1957-2000	1998-2000	90-100	a	Vital registration	Vital registration
Mexico	1955-2000	2000	90-100	a	Vital registration	Vital registration
Micronesia (Federated States of)				1999 FSM Statistical Yearbook[a]	Regional pattern	Regional pattern
Monaco				b	Based on 1998 data from Provence Alpes Cote d'Azur, Department of France	Based on 1998 data from Provence Alpes Cote d'Azur, Department of France
Mongolia	1990-2000	2000	75-89	a	CODMOD	2000
Morocco	1990-1997	1997	<75	a	CODMOD	Egypt 2000 - Iran 2000
Mozambique				a	CODMOD	South Africa 1995
Myanmar	1977-1978			a	CODMOD	Regional pattern - (Searo D)
Namibia				a	CODMOD	South Africa 1995
Nauru				Mortality decline in Nauru. Source: Richard Taylor & Kiki Thoma, unpublished 1998[a]	Regional pattern	Regional pattern
Nepal				a	CODMOD	Regional pattern - (Searo D)
Netherlands	1950-1999	1999	90-100	b	Vital registration	Vital registration
New Zealand	1950-1999	1999	90-100	b	Vital registration	Vital registration
Nicaragua	1959, 1961-1965, 1968-1969, 1973-1978, 1988-1994, 1996-2000	2000	<75	a	CODMOD	2000
Niger				a	CODMOD	South Africa 1995

Annex Table 6 (continued): Data sources and methods for estimation of mortality by cause, age and sex

Country	Vital registration data	Year used	Estimated coverage (%)	Other sources of information	Method	Cause of death distribution pattern used
Nigeria				a	CODMOD	South Africa 1995
Niue	1995-2000	1998-2000	90-100	a	Vital registration	Vital registration
Norway	1951-1999	1999	90-100	b	Vital registration	Vital registration
Oman	1997			a	CODMOD	Bahrain & Kuwait, 1997-2000
Pakistan				a	CODMOD	Regional pattern - (Searo D)
Palau				a	Regional pattern	Regional pattern
Panama	1954-1989, 1996-2000	2000	75-89	a	CODMOD	2000
Papua New Guinea	1977, 1980			a	CODMOD	Regional pattern
Paraguay	1961-1963, 1965-1991, 1994, 1999	1999	<75	a	CODMOD	1999
Peru	1966-1973, 1977-1978, 1980-1983, 1986-1989, 1999-2000	2000	<75	a	CODMOD	2000
Philippines	1963-1978, 1981, 1992-1998	1998	75-89	a	CODMOD	1998
Poland	1959-2000	2000	90-100	a	Vital registration	Vital registration
Portugal	1955-2000	2000	90-100	b	Vital registration	Vital registration
Qatar	1995, 2000	2000	<75	a	CODMOD	2000
Republic of Korea	1985-2000	2000	90-100	a	Vital registration	Vital registration
Republic of Moldova	1981-1982, 1985-2000	2000	75-89	c	Vital registration	Vital registration
Romania	1959-2000	2000	90-100	a	Vital registration	Vital registration
Russian Federation	1980-2000	2000	90-100	c	Vital registration	Vital registration
Rwanda				a	CODMOD	South Africa 1995
Saint Kitts and Nevis	1961-1963, 1965-1967, 1969-1995	1993-1995	90-100	a	Vital registration	Vital registration
Saint Lucia	1968-1981, 1983, 1986-1995	1993-1995	90-100	a	Vital registration	Vital registration
Saint Vincent and the Grenadines	1970-1972, 1974, 1977, 1979, 1982-1987, 1995	1995	90-100	a	Vital registration	Vital registration
Samoa				Demographic and Health Survey, 1999 and 2000, Department of Statistics, Samoa[a]	Regional pattern	Regional pattern
San Marino	1995-2000	1998-2000	75-89	b	Vital registration	Vital registration
Sao Tome and Principe	1984-1985, 1987			a	CODMOD	South Africa 1995
Saudi Arabia				a	CODMOD	Bahrain & Kuwait, 1997-2000
Senegal				NIAKHAR, Senegal 1983-1990 Deaths assessed by verbal autopsy. Source: M. Michel Garenne, CEPED, Paris[a]	CODMOD	South Africa 1995
Seychelles	1981-1982, 1985-1987, 1997-2000	1998-2000	90-100	a	Vital registration	Vital registration
Sierra Leone				a	CODMOD	South Africa 1995
Singapore	1955-2000	2000	75-89	a	Vital registration	Vital registration
Slovakia	1992-2000	2000	90-100	a	Vital registration	Vital registration
Slovenia	1985-1999	1999	90-100	a	Vital registration	Vital registration

Annex Table 6 (continued): Data sources and methods for estimation of mortality by cause, age and sex

Country	Vital registration data	Year used	Estimated coverage (%)	Other sources of information	Method	Cause of death distribution pattern used
Solomon Islands				a	Regional pattern	Regional pattern
Somalia				a	CODMOD	South Africa 1995
South Africa	1993-1995	1995	75-89	a) National Injury Mortality Surveillance System: Summary Report 2000, South Africa[a] b) Causes of death in a rural area of South Africa: an international perspective, Journal of Tropical Pediatrics, vol 46, 6/2000, Kahn K, Tollman SM, Garenne M, Gear JS[a] c) Rapid assessment of trauma facilities at state hospitals in South Africa, Violence and Injury Surveillance System, MRC, May 2000[a]	CODMOD	South Africa 1995
Spain	1951-1998	1998	90-100	b	Vital registration	Vital registration
Sri Lanka	1950-1968, 1977, 1980-1989, 1991-1992, 1995			a	CODMOD	Regional pattern
Sudan				a	CODMOD	South Africa 1995
Suriname	1963-1966, 1971-1973, 1975-1982, 1984-1992	1990-1992	75-89	a	Vital registration	Vital registration
Swaziland				a	CODMOD	South Africa 1995
Sweden	1951-1999	1999	90-100	b	Vital registration	Vital registration
Switzerland	1951-1998	1998	90-100	b	Vital registration	Vital registration
Syrian Arab Republic	1973-1978, 1980-1981, 1984-1985, 2000	2000		a	CODMOD	Egypt 2000 - Iran 2000
Tajikistan	1981-1982, 1985-1995, 1999	1999	<75	a	CODMOD	1999
Thailand	1955-1987, 1990-2000	2000	85	Ministry of Health - Verbal autopsy study[a]	Vital registration corrected by verbal autopsy study	2000
The former Yugoslav Republic of Macedonia	1991-2000	2000	90-100	a	Vital registration	Vital registration
Togo				a	CODMOD	South Africa 1995
Tonga	1998	1998	75-89	Report of the Minister of Health for the year 1994, Government of Tonga[a]	Vital registration	Vital registration
Trinidad and Tobago	1951-1998	1996-1998	90-100	a	Vital registration	Vital registration
Tunisia				a	CODMOD	Egypt 2000 - Iran 2000
Turkey	1987-1998	1998		a	CODMOD	1998
Turkmenistan	1981-1982, 1985-1998	1998	75-89	a	CODMOD	1998
Tuvalu				a	Regional pattern	Regional pattern
Uganda				a	CODMOD	South Africa 1995
Ukraine	1981-1982, 1985-2000	2000	90-100	c	Vital registration	Vital registration
United Arab Emirates				a	CODMOD	Bahrain & Kuwait, 1997-2000

Annex Table 6 (continued): Data sources and methods for estimation of mortality by cause, age and sex

Country	Vital registration data	Year used	Estimated coverage (%)	Other sources of information	Method	Cause of death distribution pattern used
United Kingdom	1950-2000	2000	90-100	b	Vital registration	Vital registration
United Republic of Tanzania				a	CODMOD	South Africa 1995
United States of America	1950-1999	1999	90-100	b	Vital registration	Vital registration
Uruguay	1955-1960, 1963-1978, 1980-1991, 1995-2000	2000	90-100	a	Vital registration	Vital registration
Uzbekistan	1981-1982, 1985-1998	1998	75-89	a	CODMOD	1998
Vanuatu				a	Regional pattern	Regional pattern
Venezuela (Bolivarian Republic of)	1955-1983, 1985-1990, 1992-2000	2000	90-100	a	Vital registration	Vital registration
Viet Nam				a	CODMOD	Regional pattern - (Searo D)
Yemen				a	CODMOD	Egypt 2000 - Iran 2000
Yugoslavia	2000	2000	90-100	a	Vital registration	Vital registration
Zambia	1999-2000			a	CODMOD	South Africa 1995
Zimbabwe	1990, 1994			a	CODMOD	South Africa 1995

a Epidemiological estimates obtained from studies, WHO technical Programmes and UNAids for the following conditions: AIDS, tuberculosis, measles, pertussis, poliomyelitis, tetanus, acute lower respiratory infections, Chagas, maternal conditions, perinatal conditions, cancers, drug use disorders, rhumathoid arthritis and war

b Epidemiological estimates obtained from studies, WHO technical Programmes and UNAids for the following conditions: drug use disorders and war

c Epidemiological estimates obtained from studies, WHO technical Programmes and UNAids for the following conditions: AIDS, drug use disorders and war

Annex Table 7: Population[a] by sex, age and WHO subregion, 2000

Sex / WHO subregion[b]	Total	0-4	5-14	15-29	30-44	45-59	60-69	70-79	80+
	(000)	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*
Total persons	**6,045,017**	**612,111**	**1,198,601**	**1,558,731**	**1,264,804**	**806,202**	**339,073**	**196,452**	**69,043**
AFRO D	294,078	49,681	79,497	81,470	44,793	24,127	9,041	4,357	1,111
AFRO E	345,515	58,473	94,291	95,842	52,317	28,461	10,264	4,723	1,144
AMRO A	325,183	22,555	47,212	65,976	77,226	59,813	23,602	18,464	10,336
AMRO B	430,932	44,771	88,502	121,244	89,746	52,227	19,575	11,106	3,759
AMRO D	71,230	9,354	17,223	20,521	12,587	7,008	2,705	1,399	433
EMRO B	139,059	16,461	35,754	40,153	24,771	14,409	4,703	2,231	577
EMRO D	342,576	51,708	86,837	93,193	58,593	33,090	12,110	5,666	1,379
EURO A	411,889	21,854	47,835	80,599	94,882	78,020	41,870	31,667	15,163
EURO B	218,458	17,916	39,341	57,612	45,628	30,809	15,219	9,309	2,624
EURO C	243,184	11,381	33,917	55,409	55,118	42,496	24,378	15,586	4,899
SEARO B	293,819	29,122	57,828	84,042	64,154	35,672	14,617	6,762	1,622
SEARO D	1,241,806	146,327	276,964	339,412	245,108	143,362	56,339	27,114	7,181
WPRO A	154,354	8,006	16,464	31,857	31,204	33,151	16,756	11,437	5,478
WPRO B	1,532,933	124,502	276,937	391,401	368,676	223,557	87,894	46,630	13,337
Males	**3,045,295**	**314,252**	**615,979**	**797,036**	**643,132**	**403,988**	**162,025**	**84,937**	**23,946**
AFRO D	147,133	25,128	40,191	41,047	22,333	11,776	4,227	1,968	462
AFRO E	171,600	29,418	47,268	47,898	26,080	13,736	4,706	2,054	440
AMRO A	160,494	11,554	24,169	33,571	38,923	29,579	11,227	8,014	3,458
AMRO B	213,309	22,822	45,038	60,862	43,994	25,213	9,088	4,838	1,455
AMRO D	35,471	4,766	8,752	10,312	6,137	3,392	1,288	641	182
EMRO B	72,156	8,443	18,331	20,535	13,168	7,924	2,411	1,080	264
EMRO D	174,275	26,484	44,540	47,659	29,818	16,646	5,838	2,636	653
EURO A	201,514	11,225	24,530	41,188	48,069	38,866	19,867	13,069	4,700
EURO B	108,182	9,145	20,083	29,375	22,863	15,095	6,970	3,776	875
EURO C	114,051	5,823	17,325	28,063	27,267	19,716	9,920	4,881	1,058
SEARO B	147,173	14,816	29,352	42,442	32,337	17,622	6,866	3,069	669
SEARO D	639,087	75,328	143,098	176,413	127,880	72,925	27,377	12,841	3,226
WPRO A	75,796	4,111	8,441	16,266	15,720	16,528	8,052	4,910	1,769
WPRO B	785,055	65,190	144,861	201,406	188,544	114,969	44,189	21,161	4,735
Females	**2,999,722**	**297,859**	**582,623**	**761,695**	**621,671**	**402,214**	**177,048**	**111,515**	**45,097**
AFRO D	146,945	24,553	39,306	40,422	22,461	12,351	4,814	2,390	649
AFRO E	173,915	29,055	47,023	47,944	26,237	14,725	5,558	2,669	704
AMRO A	164,689	11,001	23,042	32,405	38,303	30,234	12,375	10,450	6,878
AMRO B	217,623	21,949	43,465	60,383	45,752	27,014	10,487	6,268	2,304
AMRO D	35,759	4,587	8,471	10,209	6,450	3,616	1,416	758	251
EMRO B	66,903	8,018	17,424	19,618	11,604	6,485	2,292	1,151	313
EMRO D	168,301	25,224	42,296	45,534	28,775	16,444	6,272	3,030	726
EURO A	210,376	10,630	23,304	39,411	46,813	39,154	22,003	18,597	10,463
EURO B	110,277	8,771	19,258	28,237	22,765	15,714	8,249	5,533	1,749
EURO C	129,133	5,559	16,592	27,346	27,851	22,780	14,458	10,705	3,841
SEARO B	146,646	14,306	28,475	41,600	31,817	18,049	7,751	3,693	953
SEARO D	602,719	70,999	133,866	162,999	117,228	70,436	28,961	14,273	3,956
WPRO A	78,558	3,894	8,024	15,591	15,484	16,623	8,705	6,528	3,709
WPRO B	747,878	59,311	132,076	189,995	180,133	108,587	43,706	25,469	8,601

a Source: *World population prospects: the 2000 revision* (2001). New York, United Nations.

b See list of Member States by WHO Region and mortality stratum (Annex Table 1).

Annex Table 8: Numbers of deaths by sex, age and WHO subregion, 2000, Version 2

Sex WHO subregion[a]	Total	0-4	5-14	15-29	30-44	45-59	60-69	70-79	80+
	(000)	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*
Total persons	55776	10792	1408	3587	4926	7093	8050	10543	9377
AFRO D	4259	1957	210	389	451	389	317	345	200
AFRO E	6097	2314	255	846	1090	621	384	383	204
AMRO A	2734	37	9	56	130	308	365	676	1154
AMRO B	2579	308	35	190	248	383	399	510	504
AMRO D	528	120	17	47	56	67	64	82	74
EMRO B	696	119	22	51	59	112	111	133	90
EMRO D	3356	1341	140	212	256	368	376	424	240
EURO A	4081	24	7	49	119	350	567	1130	1834
EURO B	1950	151	17	58	115	259	391	527	433
EURO C	3604	53	16	132	310	587	756	949	802
SEARO B	2193	276	50	185	261	366	392	418	244
SEARO D	12122	2961	472	933	1097	1730	1873	2029	1027
WPRO A	1134	8	2	16	31	120	173	293	492
WPRO B	10443	1121	157	424	703	1435	1880	2644	2078
Males	29192	5581	706	1932	2957	4385	4707	5374	3550
AFRO D	2209	1031	103	171	247	226	172	171	88
AFRO E	3146	1223	126	356	592	372	209	185	84
AMRO A	1342	21	5	40	84	192	215	362	424
AMRO B	1459	171	20	146	172	236	230	271	213
AMRO D	290	66	9	29	36	38	35	43	35
EMRO B	409	65	13	34	37	73	69	74	44
EMRO D	1756	685	71	109	144	215	203	210	119
EURO A	2024	14	4	37	80	232	372	628	658
EURO B	1034	84	10	39	78	175	237	257	154
EURO C	1882	31	10	105	242	423	471	411	190
SEARO B	1184	157	26	112	154	203	212	213	108
SEARO D	6358	1464	216	458	652	1027	1031	1030	480
WPRO A	615	4	1	11	20	80	118	176	204
WPRO B	5483	566	92	286	420	893	1135	1343	749
Females	26583	5211	701	1655	1969	2709	3343	5169	5827
AFRO D	2050	927	107	218	204	162	146	175	112
AFRO E	2951	1091	129	490	499	250	175	197	119
AMRO A	1392	16	4	15	45	117	150	314	731
AMRO B	1120	137	14	44	77	147	169	240	291
AMRO D	237	55	8	18	20	29	29	39	40
EMRO B	287	54	9	17	22	39	42	59	45
EMRO D	1600	655	69	103	112	154	172	213	121
EURO A	2057	11	3	13	38	119	196	503	1176
EURO B	916	68	7	19	36	84	154	270	278
EURO C	1722	22	5	27	68	163	284	538	613
SEARO B	1009	120	24	74	108	162	180	205	136
SEARO D	5764	1497	256	475	445	703	843	999	547
WPRO A	518	3	1	5	11	39	55	116	288
WPRO B	4960	556	65	139	283	542	746	1301	1329

a See list of Member States by WHO Region and mortality stratum (Annex Table 1).

Annex Table 9: Mortality rates by sex, age and WHO subregion, 2000, Version 2

Sex	Total deaths per 100,000 population								
WHO subregion[a]	Total	0-4	5-14	15-29	30-44	45-59	60-69	70-79	80+
Total persons	923	1763	117	230	389	880	2374	5367	13581
AFRO D	1448	3940	265	477	1008	1612	3511	7927	17962
AFRO E	1765	3957	270	883	2084	2183	3745	8102	17800
AMRO A	841	162	19	84	168	516	1545	3662	11169
AMRO B	598	689	39	157	277	733	2039	4596	13420
AMRO D	741	1283	99	229	445	955	2377	5862	17168
EMRO B	501	725	61	127	239	775	2367	5942	15534
EMRO D	980	2593	161	227	437	1112	3103	7478	17407
EURO A	991	112	14	61	125	449	1355	3570	12093
EURO B	893	845	44	100	251	839	2569	5660	16496
EURO C	1482	466	47	237	563	1380	3099	6086	16379
SEARO B	747	949	86	221	408	1025	2684	6183	15056
SEARO D	976	2024	170	275	448	1207	3325	7484	14301
WPRO A	735	99	13	49	99	361	1033	2558	8986
WPRO B	681	901	57	108	191	642	2139	5670	15583
Males	959	1776	115	242	460	1085	2905	6327	14825
AFRO D	1501	4102	257	416	1107	1923	4058	8684	18999
AFRO E	1834	4157	267	743	2268	2705	4439	9014	19135
AMRO A	836	178	22	120	216	648	1912	4515	12250
AMRO B	684	750	45	240	390	935	2528	5601	14652
AMRO D	819	1375	104	286	579	1127	2719	6676	19065
EMRO B	567	774	69	164	281	921	2875	6842	16712
EMRO D	1008	2588	159	228	482	1289	3483	7982	18270
EURO A	1004	122	16	89	167	596	1872	4801	13999
EURO B	956	916	50	133	343	1157	3394	6811	17642
EURO C	1650	526	60	373	888	2146	4751	8411	17918
SEARO B	805	1057	89	264	475	1154	3090	6938	16112
SEARO D	995	1944	151	260	510	1408	3764	8025	14891
WPRO A	812	107	15	67	130	486	1463	3593	11537
WPRO B	698	868	63	142	223	777	2568	6348	15815
Females	886	1750	120	217	317	673	1888	4635	12921
AFRO D	1395	3774	272	539	910	1315	3030	7303	17223
AFRO E	1697	3756	274	1023	1900	1696	3157	7399	16965
AMRO A	845	145	15	47	119	385	1212	3008	10625
AMRO B	515	625	33	73	168	544	1616	3821	12643
AMRO D	664	1188	93	172	317	793	2067	5175	15794
EMRO B	429	674	52	87	192	596	1832	5098	14538
EMRO D	951	2598	163	227	390	934	2749	7040	16631
EURO A	978	101	12	32	82	303	889	2704	11237
EURO B	831	772	38	66	159	534	1871	4874	15924
EURO C	1333	403	32	99	245	718	1966	5027	15955
SEARO B	688	837	83	177	339	900	2324	5556	14316
SEARO D	956	2108	191	291	380	998	2909	6997	13820
WPRO A	660	89	10	29	68	236	635	1780	7770
WPRO B	663	937	49	73	157	499	1706	5107	15455

a ee list of Member States by WHO Region and mortality stratum (Annex Table 1).

Annex Table 10: Deaths by cause, sex and WHO subregions[a], 2000, Version 2

	Global total						AFRO		AMRO		
	Both sexes		Males		Females		D	E	A	B	D
Cause[b]	*(000)*	*%*	*(000)*	*%*	*(000)*	*%*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*
Population (000)	6045017		3045295		2999722		294 078	345 515	325 183	430 932	71 230
All Causes	55 776	100	29 192	100	26 583	100	4 259	6 097	2 734	2 579	528
I. Communicable, maternal, perinatal nutritional conditions	18 097	32.4	9 370	32.1	8 727	32.8	2 883	4 411	173	480	184
A. Infectious & parasitic diseases	10 656	19.1	5 714	19.6	4 942	18.6	1 967	3 320	66	195	102
1. **Tuberculosis**	1 596	2.9	1 035	3.5	561	2.1	144	172	1	27	19
2. **STDs excluding HIV**	188	0.3	102	0.3	86	0.3	43	58	0	1	1
a. Syphilis	168	0.3	97	0.3	71	0.3	42	56	0	1	1
b. Chlamydia	8	0.0	0	0.0	8	0.0	1	1	0	0	0
c. Gonorrhoea	2	0.0	0	0.0	2	0.0	1	1	0	0	0
3. **HIV/AIDS**	2 571	4.6	1 364	4.7	1 207	4.5	367	1 631	15	34	24
4. **Diarrhoeal diseases**	2 020	3.6	1 042	3.6	977	3.7	264	433	2	49	26
5. **Childhood-cluster diseases**	1 392	2.5	696	2.4	695	2.6	432	305	0	1	7
a. Pertussis	301	0.5	150	0.5	150	0.6	92	73	0	1	6
b. Poliomyelitis	1	0.0	1	0.0	1	0.0	0	0	0	0	0
c. Diphtheria	6	0.0	3	0.0	3	0.0	1	1	0	0	0
d. Measles	785	1.4	393	1.3	392	1.5	264	186	0	0	0
e. Tetanus	300	0.5	150	0.5	150	0.6	75	45	0	0	1
6. **Meningitis**	176	0.3	97	0.3	78	0.3	10	12	1	11	5
7. **Hepatitis B**[c]	79	0.1	52	0.2	27	0.1	5	6	0	3	2
Hepatitis C	45	0.1	28	0.1	17	0.1	2	3	4	2	0
8. **Malaria**	1 121	2.0	531	1.8	589	2.2	486	471	0	1	0
9. **Tropical-cluster diseases**	135	0.2	83	0.3	52	0.2	32	30	0	9	5
a. Trypanosomiasis	49	0.1	32	0.1	17	0.1	25	24	0	0	0
b. Chagas disease	13	0.0	7	0.0	6	0.0	0	0	0	8	5
c. Schistosomiasis	15	0.0	11	0.0	5	0.0	3	2	0	1	0
d. Leishmaniasis	57	0.1	33	0.1	24	0.1	5	4	0	1	0
e. Lymphatic filariasis	0	0.0	0	0.0	0	0.0	0	0	0	0	0
f. Onchocerciasis	0	0.0	0	0.0	0	0.0	0	0	0	0	0
10. **Leprosy**	4	0.0	3	0.0	1	0.0	0	0	0	0	0
11. **Dengue**	19	0.0	9	0.0	10	0.0	0	0	0	1	2
12. **Japanese encephalitis**	17	0.0	8	0.0	9	0.0	0	0	0	0	0
13. **Trachoma**	0	0.0	0	0.0	0	0.0	0	0	0	0	0
14. **Intestinal nematode infections**	12	0.0	7	0.0	6	0.0	1	2	0	1	0
a. Ascariasis	5	0.0	3	0.0	2	0.0	0	1	0	0	0
b. Trichuriasis	7	0.0	1	0.0	4	0.0	0	0	4	0	0
c. Hookworm disease	3	0.0	2	0.0	2	0.0	1	1	0	0	0
B. Respiratory infections	4 509	8.1	2 052	7.0	2 158	8.1	455	588	642	107	37
1. Lower respiratory infections	6 164	11.1	2 007	6.9	3 052	11.5	449	580	2 387	106	35
2. Upper respiratory infections	727	1.3	43	0.1	350	1.3	4	5	642	1	2
3. Otitis media	16	0.0	3	0.0	7	0.0	1	2	10	0	0
C. Maternal conditions	521	0.9	0	0.0	509	1.9	97	142	13	13	9
D. Perinatal conditions	2 505	4.5	1 389	4.8	1 116	4.2	294	281	18	125	26
E. Nutritional deficiencies	479	0.9	215	0.7	264	1.0	70	80	8	40	12
1. Protein-energy malnutrition	264	0.5	132	0.5	131	0.5	49	52	4	31	9
2. Iodine deficiency	6	0.0	3	0.0	3	0.0	1	2	0	0	0
3. Vitamin A deficiency	28	0.1	11	0.0	17	0.1	11	13	0	0	0
4. Iron-deficiency anaemia	135	0.2	48	0.2	86	0.3	8	13	3	7	3
II. Noncommunicable diseases	32 541	58.3	16 416	56.2	16 125	60.7	1 070	1 233	2 387	1 778	286
A. Malignant neoplasms	7 022	12.6	3 893	13.3	3 129	11.8	236	296	642	385	73
1. Mouth and oropharynx cancers	320	0.6	222	0.8	97	0.4	11	21	10	11	1
2. Oesophagus cancer	428	0.8	274	0.9	154	0.6	6	21	13	14	1
3. Stomach cancer	829	1.5	512	1.8	317	1.2	19	17	11	42	15
4. Colon and rectum cancers	569	1.0	312	1.1	258	1.0	11	14	37	29	4
5. Liver cancer	601	1.1	415	1.4	186	0.7	29	33	10	18	6
6. Pancreas cancer	213	0.4	117	0.4	96	0.4	3	5	24	16	2
7. Trachea/bronchus/lung cancers	1 189	2.1	877	3.0	312	1.2	9	14	164	47	3
8. Melanoma & other skin cancers	54	0.1	35	0.1	27	0.1	4	5	1	6	1
9. Breast cancer	417	0.7	3	0.0	414	1.6	14	23	3	30	4
10. Cervix uteri cancer	255	0.5	0	0.0	255	1.0	21	37	1	19	5
11. Corpus uteri cancer	64	0.1	0	0.0	64	0.2	1	2	0	10	4
12. Ovary cancer	129	0.2	0	0.0	129	0.5	3	7	16	7	1
13. Prostate cancer	264	0.5	264	0.9	0	0.0	24	19	41	29	6
14. Bladder cancer	177	0.3	124	0.4	53	0.2	8	6	16	7	1

Annex Table 10 (continued): Deaths by cause, sex and WHO subregions[a], 2000, Version 2

	EMRO		EURO			SEARO		WPRO	
	B	D	A	B	C	B	D	A	B
Cause[b]	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*
Population (000)	139 059	342 576	411 889	218 458	243 184	293 819	1241806	154 354	1532933
All Causes	696	3 356	4 081	1 950	3 604	2 193	12 122	1 134	10 443
I. Communicable, maternal, perinatal nutritional conditions	129	1 652	238	200	154	652	5 193	133	1 614
A. Infectious & parasitic diseases	57	912	48	66	83	377	2 737	23	702
1. **Tuberculosis**	7	124	5	20	54	133	551	6	332
2. **STDs excluding HIV**	0	18	0	1	0	2	57	0	5
a. Syphilis	0	17	0	0	0	2	46	0	4
b. Chlamydia	0	0	0	0	0	0	4	0	1
c. Gonorrhoea	0	0	0	0	0	0	0	0	0
3. **HIV/AIDS**	0	49	7	1	14	46	342	0	40
4. **Diarrhoeal diseases**	21	283	2	17	3	57	774	1	87
5. **Childhood-cluster diseases**	1	210	0	7	0	43	331	0	54
a. Pertussis	0	63	0	0	0	1	62	0	2
b. Poliomyelitis	0	0	0	0	0	0	0	0	0
c. Diphtheria	0	0	0	0	0	0	3	0	0
d. Measles	0	90	0	7	0	34	170	0	34
e. Tetanus	0	57	0	0	0	8	96	0	18
6. **Meningitis**	3	17	2	10	4	16	62	1	22
7. **Hepatitis B[c]**	2	5	1	2	1	10	21	1	21
Hepatitis C	1	2	3	1	1	4	8	4	8
8. **Malaria**	0	51	0	0	0	13	88	0	10
9. **Tropical-cluster diseases**	0	10	0	0	0	0	42	0	5
a. Trypanosomiasis	0	1	0	0	0	0	0	0	0
b. Chagas disease	0	0	0	0	0	0	0	0	0
c. Schistosomiasis	0	5	0	0	0	0	0	0	4
d. Leishmaniasis	0	4	0	0	0	0	42	0	1
e. Lymphatic filariasis	0	0	0	0	0	0	0	0	0
f. Onchocerciasis	0	0	0	0	0	0	0	0	0
10. **Leprosy**	0	0	0	0	0	2	2	0	0
11. **Dengue**	0	1	0	0	0	2	10	0	3
12. **Japanese encephalitis**	0	1	0	0	0	0	9	0	7
13. **Trachoma**	0	0	0	0	0	0	0	0	0
14. **Intestinal nematode infections**	0	0	0	0	0	2	4	0	2
a. Ascariasis	0	0	0	0	0	0	2	0	1
b. Trichuriasis	0	0	0	0	0	0	1	0	0
c. Hookworm disease	0	0	0	0	0	1	0	0	0
B. Respiratory infections	38	353	172	86	49	121	1 241	106	516
1. Lower respiratory infections	37	348	169	84	48	117	1 222	105	476
2. Upper respiratory infections	1	5	3	2	2	3	18	1	39
3. Otitis media	0	0	0	0	0	1	1	0	0
C. Maternal conditions	3	66	0	1	1	22	132	0	21
D. Perinatal conditions	26	284	11	44	18	92	933	2	351
E. Nutritional deficiencies	4	36	7	3	2	40	151	2	24
1. Protein-energy malnutrition	3	22	3	1	1	15	57	1	16
2. Iodine deficiency	0	1	0	0	0	0	2	0	0
3. Vitamin A deficiency	0	1	0	0	0	0	2	0	0
4. Iron-deficiency anaemia	1	9	3	2	1	14	66	0	5
II. Noncommunicable diseases	464	1 420	3 643	1 636	2 986	1 251	5 748	917	7 722
A. Malignant neoplasms	78	197	1 062	289	504	229	858	337	1 837
1. Mouth and oropharynx cancers	3	18	25	9	18	16	124	6	47
2. Oesophagus cancer	3	11	29	7	14	4	73	11	221
3. Stomach cancer	11	11	67	29	73	9	54	54	418
4. Colon and rectum cancers	4	10	142	28	62	23	33	43	128
5. Liver cancer	4	10	39	11	13	30	33	35	331
6. Pancreas cancer	2	3	54	12	21	5	13	21	32
7. Trachea/bronchus/lung cancers	11	19	207	61	100	35	127	61	331
8. Melanoma & other skin cancers	0	1	16	4	6	1	2	3	4
9. Breast cancer	5	18	93	21	40	23	64	13	65
10. Cervix uteri cancer	3	14	8	7	12	14	82	3	29
11. Corpus uteri cancer	0	1	16	5	11	2	3	3	6
12. Ovary cancer	1	3	26	6	13	7	18	5	15
13. Prostate cancer	2	5	70	10	13	6	18	11	8
14. Bladder cancer	3	17	38	10	13	5	26	6	23

Annex Table 10 (continued): Deaths by cause, sex and WHO subregions[a], 2000, Version 2

Cause[b]	Global total						AFRO		AMRO		
	Both sexes		Males		Females		D	E	A	B	D
	(000)	*%*	*(000)*	*%*	*(000)*	*%*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*
15. Lymphomas/multiple myeloma	332	0.6	169	0.6	164	0.6	20	19	46	17	4
16. Leukaemia	256	0.5	145	0.5	110	0.4	8	12	23	17	4
B. Other neoplasms	**161**	**0.3**	**72**	**0.2**	**83**	**0.3**	**1**	**2**	**30**	**10**	**1**
C. Diabetes mellitus	**879**	**1.6**	**392**	**1.3**	**486**	**1.8**	**19**	**34**	**78**	**135**	**15**
D. Endocrine disorders	**247**	**0.4**	**110**	**0.4**	**137**	**0.5**	**17**	**19**	**30**	**24**	**5**
E. Neuro-psychiatric conditions	**1 011**	**1.8**	**518**	**1.8**	**493**	**1.9**	**35**	**43**	**149**	**53**	**10**
1. Unipolar depressive disorders	12	0.0	5	0.0	7	0.0	0	0	1	0	0
2. Bipolar affective disorder	1	0.0	0	0.0	1	0.0	0	0	0	0	0
3. Schizophrenia	23	0.0	12	0.0	12	0.0	0	0	1	0	0
4. Epilepsy	109	0.2	62	0.2	46	0.2	9	14	2	6	2
5. Alcohol use disorders	92	0.2	73	0.3	18	0.1	3	8	13	14	2
6. Alzheimer and other dementias	361	0.6	129	0.4	232	0.9	2	3	85	8	0
7. Parkinson disease	79	0.1	44	0.2	40	0.2	2	2	5	4	1
8. Multiple sclerosis	15	0.0	6	0.0	9	0.0	0	0	3	1	0
9. Drug use disorders	70	0.1	57	0.2	12	0.0	2	0	5	2	1
10. Post-traumatic stress disorder	0	0.0	0	0.0	0	0.0	0	0	0	0	0
11. Obsessive-compulsive disorder	0	0.0	0	0.0	0	0.0	0	0	0	0	0
12. Panic disorder	0	0.0	0	0.0	0	0.0	0	0	0	0	0
13. Insomnia (primary)	0	0.0	0	0.0	0	0.0	0	0	0	0	0
14. Migraine	0	0.0	0	0.0	0	0.0	0	0	0	0	0
F. Sense organ diseases	**4**	**0.0**	**1**	**0.0**	**2**	**0.0**	**0**	**0**	**0**	**0**	**0**
1. Glaucoma	0	0.0	0	0.0	0	0.0	0	0	0	0	0
2. Cataracts	1	0.0	0	0.0	1	0.0	0	0	0	0	0
4. Hearing loss, adult onset	0	0.0	0	0.0	0	0.0	0	0	0	0	0
G. Cardiovascular diseases	**16 257**	**29.1**	**7 783**	**26.7**	**8 475**	**31.9**	**469**	**489**	**1 098**	**758**	**99**
1. Rheumatic heart disease	332	0.6	137	0.5	195	0.7	14	14	4	6	0
2. Hypertensive heart disease	950	1.7	388	1.3	562	2.1	25	28	140	67	13
3. Ischaemic heart disease	7 033	12.6	3 669	12.6	3 364	12.7	164	160	618	304	34
4. Cerebrovascular disease	5 342	9.6	2 438	8.4	2 898	10.9	139	159	195	225	25
5. Inflammatory heart diseases	369	0.7	189	0.6	180	0.7	16	17	37	29	1
H. Respiratory diseases	**3 494**	**6.3**	**1 778**	**6.1**	**1 717**	**6.5**	**102**	**126**	**185**	**161**	**20**
1. COPD	2 621	4.7	1 324	4.5	1 298	4.9	52	61	132	82	5
2. Asthma	221	0.4	108	0.4	113	0.4	9	15	6	10	2
I. Digestive diseases	**1 963**	**3.5**	**1 092**	**3.7**	**872**	**3.3**	**90**	**106**	**97**	**146**	**34**
1. Peptic ulcer disease	255	0.5	151	0.5	103	0.4	7	9	3	11	3
2. Cirrhosis of the liver	785	1.4	498	1.7	286	1.1	32	36	30	57	15
3. Appendicitis	80	0.1	12	0.0	43	0.2	1	1	59	2	1
J. Genito-urinary diseases	**810**	**1.5**	**441**	**1.5**	**369**	**1.4**	**56**	**63**	**59**	**51**	**16**
1. Nephritis and nephrosis	614	1.1	325	1.1	289	1.1	37	41	41	40	13
2. Benign prostatic hypertrophy	35	0.1	35	0.1	0	0.0	3	4	1	2	0
K. Skin diseases	**66**	**0.1**	**29**	**0.1**	**37**	**0.1**	**10**	**12**	**4**	**6**	**2**
L. Musculoskeletal diseases	**111**	**0.2**	**38**	**0.1**	**74**	**0.3**	**6**	**6**	**15**	**9**	**2**
1. Rheumatoid arthritis	23	0.0	7	0.0	16	0.1	1	1	1	2	0
2. Osteoarthritis	4	0.0	1	0.0	3	0.0	0	0	1	0	0
M. Congenital anomalies	**528**	**0.9**	**268**	**0.9**	**260**	**1.0**	**29**	**37**	**13**	**41**	**10**
N. Oral conditions	**2**	**0.0**	**1**	**0.0**	**1**	**0.0**	**0**	**0**	**0**	**0**	**0**
1. Dental caries	0	0.0	0	0.0	0	0.0	0	0	0	0	0
2. Periodontal disease	0	0.0	0	0.0	0	0.0	0	0	0	0	0
3. Edentulism	55	0.1	0	0.0	55	0.2	0	0	55	0	0
III. Injuries	**5 012**	**9.0**	**3 406**	**11.7**	**1 693**	**6.4**	**306**	**453**	**49**	**321**	**58**
A. Unintentional injuries	**3 529**	**6.3**	**2 270**	**7.8**	**1 258**	**4.7**	**215**	**247**	**117**	**171**	**44**
1. Road traffic accidents	1 203	2.2	856	2.9	347	1.3	78	99	49	79	14
2. Poisonings	344	0.6	218	0.7	126	0.5	16	21	14	2	1
3. Falls	383	0.7	228	0.8	155	0.6	8	10	18	12	1
4. Fires	311	0.6	130	0.4	181	0.7	19	17	4	4	1
5. Drownings	409	0.7	282	1.0	128	0.5	50	41	4	16	4
6. Other unintentional injuries	877	1.6	556	1.9	322	1.2	44	60	28	58	22
B. Intentional injuries	**1 601**	**2.9**	**1 135**	**3.9**	**466**	**1.8**	**91**	**206**	**49**	**150**	**14**
1. Self-inflicted injuries	855	1.5	526	1.8	329	1.2	11	17	37	25	3
2. Violence	485	0.9	386	1.3	113	0.4	45	70	0	120	11
3. War	235	0.4	212	0.7	23	0.1	35	119	0	4	0

Annex Table 10 (continued): Deaths by cause, sex and WHO subregions[a], 2000, Version 2

	EMRO		EURO			SEARO		WPRO	
	B	D	A	B	C	B	D	A	B
Cause[b]	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*
15. Lymphomas/multiple myeloma	7	18	55	11	10	14	75	14	24
16. Leukaemia	4	13	37	11	15	11	32	9	60
B. Other neoplasms	**2**	**11**	**28**	**4**	**5**	**23**	**15**	**10**	**18**
C. Diabetes mellitus	**16**	**35**	**90**	**29**	**21**	**60**	**170**	**17**	**160**
D. Endocrine disorders	**5**	**22**	**28**	**3**	**3**	**16**	**19**	**9**	**46**
E. Neuro-psychiatric conditions	**16**	**56**	**176**	**24**	**40**	**52**	**204**	**21**	**131**
1. Unipolar depressive disorders	0	1	2	0	0	0	8	0	0
2. Bipolar affective disorder	0	0	0	0	0	0	0	0	0
3. Schizophrenia	0	1	1	0	1	1	13	0	4
4. Epilepsy	2	8	6	4	5	4	29	1	17
5. Alcohol use disorders	1	1	14	3	8	4	10	1	11
6. Alzheimer and other dementias	1	9	88	3	5	20	76	8	52
7. Parkinson disease	1	1	21	2	1	3	8	4	25
8. Multiple sclerosis	0	0	4	1	2	0	1	0	1
9. Drug use disorders	4	17	6	2	7	1	19	1	3
10. Post-traumatic stress disorder	0	0	0	0	0	0	0	0	0
11. Obsessive-compulsive disorder	0	0	0	0	0	0	0	0	0
12. Panic disorder	0	0	0	0	0	0	0	0	0
13. Insomnia (primary)	0	0	0	0	0	0	0	0	0
14. Migraine	0	0	0	0	0	0	0	0	0
F. Sense organ diseases	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**
1. Glaucoma	0	0	0	0	0	0	0	0	0
2. Cataracts	0	0	0	0	0	0	0	0	0
4. Hearing loss, adult onset	0	0	0	0	0	0	0	0	0
G. Cardiovascular diseases	**272**	**733**	**1 757**	**1 090**	**2 125**	**556**	**3 126**	**384**	**3 303**
1. Rheumatic heart disease	3	21	11	8	15	9	120	3	104
2. Hypertensive heart disease	34	54	68	65	39	61	73	9	272
3. Ischaemic heart disease	142	363	738	491	1 160	226	1 685	133	815
4. Cerebrovascular disease	46	166	454	290	710	188	849	158	1 738
5. Inflammatory heart diseases	6	22	29	26	31	12	64	7	73
H. Respiratory diseases	**19**	**121**	**213**	**78**	**122**	**127**	**673**	**57**	**1 490**
1. COPD	10	76	140	48	93	64	532	22	1 305
2. Asthma	3	14	13	11	15	21	64	6	33
I. Digestive diseases	**20**	**119**	**187**	**77**	**117**	**98**	**399**	**44**	**431**
1. Peptic ulcer disease	3	10	18	9	13	19	74	5	71
2. Cirrhosis of the liver	8	51	67	41	58	41	168	14	166
3. Appendicitis	0	1	1	0	1	1	7	0	5
J. Genito-urinary diseases	**16**	**59**	**62**	**26**	**26**	**52**	**135**	**27**	**163**
1. Nephritis and nephrosis	9	50	41	20	15	39	112	23	132
2. Benign prostatic hypertrophy	1	2	1	1	2	2	11	0	5
K. Skin diseases	**1**	**3**	**8**	**0**	**3**	**5**	**8**	**1**	**2**
L. Musculoskeletal diseases	**1**	**3**	**19**	**2**	**5**	**11**	**8**	**5**	**19**
1. Rheumatoid arthritis	0	0	4	1	3	2	2	2	5
2. Osteoarthritis	0	0	2	0	0	0	0	0	0
M. Congenital anomalies	**19**	**61**	**12**	**13**	**14**	**22**	**132**	**4**	**121**
N. Oral conditions	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**
1. Dental caries	0	0	0	0	0	0	0	0	0
2. Periodontal disease	0	0	0	0	0	0	0	0	0
3. Edentulism	0	0	0	0	0	0	0	0	0
III. Injuries	**103**	**284**	**200**	**114**	**464**	**290**	**1 180**	**84**	**1 107**
A. Unintentional injuries	**86**	**205**	**142**	**79**	**293**	**223**	**901**	**48**	**758**
1. Road traffic accidents	40	66	48	22	58	144	213	14	279
2. Poisonings	3	16	6	6	95	8	85	2	71
3. Falls	5	18	49	9	23	17	102	7	102
4. Fires	7	25	3	3	30	10	168	2	18
5. Drownings	5	23	4	7	27	13	79	6	131
6. Other unintentional injuries	26	57	33	32	61	31	253	17	157
B. Intentional injuries	**17**	**79**	**57**	**34**	**171**	**68**	**279**	**36**	**349**
1. Self-inflicted injuries	10	29	52	22	97	36	198	35	283
2. Violence	6	17	5	8	60	15	63	1	64
3. War	0	31	1	3	13	17	11	0	2

a See list of Member States by WHO Region and mortality stratum (Annex Table 1).

b Estimates for specific causes may not sum to broader cause groupings due to omission of residual categories.

c Does not include liver cancer and cirrhosis deaths resulting from chronic hepatitis virus infection.

Annex Table 11: Annual incidence ('000s) for selected causes: by sex, age and WHO subregion[a], 2000 Version 2

	Global total			AFRO		AMRO		
	Both sexes	Males	Females	D	E	A	B	D
Cause	(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)
Population (000)	6045017	3045295	2999722	294 078	345 515	325 183	430 932	71 230
IA1. Tuberculosis[b]	7753	4951	2803	600	864	15	227	126
IA2a. Syphilis[c]	8927	4079	4848	1161	1364	115	1932	306
IA2b. Chlamydia[d]	41871	29739	12132	3099	3632	1515	3685	585
IA2c. Gonorrhoea[e]	36329	23610	12719	4158	4875	794	3707	586
IA3. HIV infection	4716	2450	2266	638	2719	37	154	61
IA3. AIDS	3095	1639	1456	529	1917	37	47	26
IA4. Diarrhoeal diseases	4402571	2245263	2157309	369423	435053	76030	374586	71479
IA5. Childhood-cluster diseases								
IA5a. Pertussis	41809	20917	20891	6701	5828	946	2702	647
IA5b. Poliomyelitis	16	8	8	1	0	0	1	0
IA5c. Diphtheria	20	10	10	4	1	0	1	0
IA5d. Measles	32199	16094	16105	6784	6481	0	4	4
IA5e. Tetanus	526	265	262	130	79	0	0	1
IA6. Meningitis								
Streptococcus pneumoniae	170	85	85	23	28	6	28	5
Haemophilus influenzae	143	73	70	26	20	1	12	3
Meningococcaemia without meningitis	143	73	70	28	19	4	10	2
IA7a. Hepatitis B	797	500	297	66	91	87	10	4
IA7b. Hepatitis C	410	263	147	34	47	46	5	3
IA8. Malaria	387571	194532	193039	169047	167446	0	2997	754
IA9. Tropical-cluster diseases								
IA9b. Chagas disease[f]	212	101	111	0	0	2	120	90
IA10. Leprosy	174	89	85	11	10	0	17	0
IA11. Dengue	71	33	38	2	2	0	0	0
IB. Respiratory infections								
IB1. Lower respiratory infections	390999	199440	191560	31530	36562	4606	29657	5800
IC. Maternal conditions								
IC1. Maternal haemorrhage	5739	0	5739	577	713	146	322	86
IC2. Maternal sepsis	7345	0	7345	739	908	139	544	93
IC3. Hypertensive disorders	6836	0	6836	728	898	89	403	130
IC4. Obstructed labor	7815	0	7815	784	924	180	488	133
IC5. Abortion[g]	1436	0	1436	217	542	0	53	35
IE1. Protein-energy malnutrition								
Wasting	10197	5226	4971	1331	807	29	186	45
Stunting	35209	18214	16995	3490	4888	102	908	548
Developmental disability	7445	3808	3637	1107	1222	7	148	30
IE2. Iodine deficiency	1039	16	1024	74	150	3	26	13
IE3. Vitamin A deficiency	164	84	80	25	41	0	0	0
IIA. Malignant neoplasms								
IIA1. Mouth and oropharynx cancers	420	267	152	20	28	17	15	2
IIA2. Oesophagus cancer	454	287	166	9	21	16	15	1
IIA3. Stomach cancer	974	590	384	24	19	19	49	17
IIA4. Colon and rectum cancers	1044	527	517	18	20	159	47	6
IIA5. Liver cancer	621	418	203	32	33	14	19	6
IIA6. Pancreas cancer	227	120	107	3	5	31	17	2
IIA7. Trachea/bronchus/lung cancers	1295	940	355	10	15	187	55	3
IIA8. Melanoma & other skin cancers	206	118	88	7	8	88	11	2
IIA9. Breast cancer	1023	0	1023	28	37	226	59	7
IIA10. Cervix uteri cancer	497	0	497	43	66	16	41	9
IIA11. Corpus uteri cancer	316	0	316	5	6	46	49	9
IIA12. Ovary cancer	218	0	218	7	11	22	13	2
IIA13. Prostate cancer	549	549	0	36	28	166	46	9

a. See list of Member States by WHO Region and mortality stratum (Annex Table 1).

b Incidence of tuberculosis in HIV-negative persons only

c Primary and congenital syphilis

d Cases of ophthalmia neonatorum, cervicitis, and male urethritis

e Cases of ophthalmia neonatorum, cervicitis, and male urethritis

f Infection with T cruzi

g Cases of unsafe abortion

Annex Table 11 (continued): Annual incidence ('000s) for selected causes: by sex, age and WHO subregion[a], 2000 Version 2

	EMRO		EURO			SEARO		WPRO	
	B	D	A	B	C	B	D	A	B
Cause	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*
Population (000)	139 059	342 576	411 889	218 458	243 184	293 819	1241806	154 354	1532933
IA1. Tuberculosis[b]	68	554	60	133	267	700	2324	48	1767
IA2a. Syphilis[c]	131	529	91	97	66	519	1917	39	658
IA2b. Chlamydia[d]	1692	3613	1813	1582	1319	2607	12154	671	3903
IA2c. Gonorrhoea[e]	745	2743	892	998	1001	1602	11414	335	2478
IA3. HIV infection	1	62	21	2	118	86	561	2	257
IA3. AIDS	0	49	7	2	14	45	340	0	82
IA4. Diarrhoeal diseases	101090	325728	78341	79054	49357	180993	1019523	30272	1211642
IA5. Childhood-cluster diseases									
IA5a. Pertussis	726	4996	1185	1037	589	1617	7977	573	6283
IA5b. Poliomyelitis	0	1	0	0	0	1	6	0	5
IA5c. Diphtheria	0	1	0	0	0	1	12	0	0
IA5d. Measles	625	2910	75	558	320	1080	7879	26	5454
IA5e. Tetanus	0	102	0	0	0	15	165	0	33
IA6. Meningitis									
Streptococcus pneumoniae	4	12	5	2	2	7	32	2	15
Haemophilus influenzae	2	14	2	1	1	8	40	1	13
Meningococcaemia without meningitis	3	10	6	2	4	5	21	2	27
IA7a. Hepatitis B	15	21	74	26	29	27	135	96	117
IA7b. Hepatitis C	8	11	38	13	15	13	66	50	63
IA8. Malaria	393	11329	0	0	0	7459	26015	7	2125
IA9. Tropical-cluster diseases									
IA9b. Chagas disease[f]	0	0	0	0	0	0	0	0	0
IA10. Leprosy	0	17	0	0	0	5	107	0	7
IA11. Dengue	0	7	0	0	0	9	42	0	9
IB. Respiratory infections									
IB1. Lower respiratory infections	10759	36644	5807	11157	8623	21505	102261	2205	83883
IC. Maternal conditions									
IC1. Maternal haemorrhage	183	662	152	132	79	305	1279	52	1052
IC2. Maternal sepsis	233	940	143	168	107	328	1945	51	1006
IC3. Hypertensive disorders	152	921	93	77	49	305	1901	32	1058
IC4. Obstructed labor	187	669	168	143	89	430	2217	65	1337
IC5. Abortion[g]	4	129	0	1	1	68	364	0	22
IE1. Protein-energy malnutrition									
Wasting	210	1293	33	156	79	588	4229	14	1198
Stunting	398	3857	101	507	196	1545	12658	47	5964
Developmental disability	54	930	6	45	25	392	2219	5	1254
IE2. Iodine deficiency	35	72	32	87	216	20	242	0	70
IE3. Vitamin A deficiency	0	18	0	2	0	1	62	0	13
IIA. Malignant neoplasms									
IIA1. Mouth and oropharynx cancers	5	3	39	11	22	24	162	10	62
IIA2. Oesophagus cancer	3	1	31	8	14	6	78	12	237
IIA3. Stomach cancer	13	5	80	34	85	15	50	64	501
IIA4. Colon and rectum cancers	7	6	265	44	97	43	47	91	194
IIA5. Liver cancer	4	3	40	11	14	37	30	36	341
IIA6. Pancreas cancer	2	2	56	12	22	7	13	21	33
IIA7. Trachea/bronchus/lung cancers	12	10	227	65	107	51	133	66	354
IIA8. Melanoma & other skin cancers	1	0	49	7	10	3	4	12	5
IIA9. Breast cancer	10	14	222	37	68	53	103	44	113
IIA10. Cervix uteri cancer	7	6	19	15	22	32	158	7	57
IIA11. Corpus uteri cancer	2	1	68	22	44	20	10	17	18
IIA12. Ovary cancer	2	2	39	11	22	18	30	8	29
IIA13. Prostate cancer	3	3	139	16	22	13	29	28	11

a. See list of Member States by WHO Region and mortality stratum (Annex Table 1).

b Incidence of tuberculosis in HIV-negative persons only

c Primary and congenital syphilis

d Cases of ophthalmia neonatorum, cervicitis, and male urethritis

e Cases of ophthalmia neonatorum, cervicitis, and male urethritis

f Infection with T cruzi

g Cases of unsafe abortion

Annex Table 11 (continued): Annual incidence ('000s) for selected causes: by sex, age and WHO subregion[a], 2000 Version 2

	Global total			AFRO		AMRO		
	Both sexes	Males	Females	D	E	A	B	D
Cause	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*
Population (000)	6045017	3045295	2999722	294 078	345 515	325 183	430 932	71 230
IIA14. Bladder cancer	382	274	108	14	11	75	12	1
IIA15. Lymphomas/multiple myeloma	485	237	248	31	26	68	26	5
IIA16. Leukaemia	361	196	165	12	16	35	26	6
IIC. Diabetes mellitus	11078	5370	5708	337	293	1095	778	120
IIG. Cardiovascular disease								
IIG3. Ischaemic heart disease[a]	5719	3161	2558	132	152	531	299	27
IIG4. Cerebrovascular disease[b]	3763	1897	1867	119	145	96	169	19
IIH. Respiratory diseases								
IIH1. Chronic obstructive pulmonary disease	5431	3340	2090	89	96	385	371	15
IIH2. Asthma	17407	11018	6388	1106	1604	1277	2200	406
IIIA. Unintentional injuries								
IIIA1. Road traffic accidents[c]	20441	13021	7420	1801	2513	472	1526	207
IIIA2. Poisonings[c]	2132	1101	1031	118	132	121	168	27
IIIA3. Falls[c]	32337	17899	14438	987	1368	1328	1497	286
IIIA4. Fires[c]	9124	4386	4738	672	800	80	179	31
IIIA5. Drownings[c]	88	48	40	6	7	3	6	1
IIIA6. Other unintentional injuries[c]	46472	28613	17858	3360	4448	974	3170	619
IIIB. Intentional injuries								
IIIB1. Self-inflicted injuries[c]	10313	3605	6708	291	437	624	413	102
IIIB2. Violence[c]	17076	13901	3176	2432	2827	369	4817	337

a Acute myocardial infarction episode

b First-ever stroke

c Cases severe enough to warrant medical attention

Annex Table 11 (continued): Annual incidence ('000s) for selected causes: by sex, age and WHO subregion[a], 2000 Version 2

	EMRO		EURO			SEARO		WPRO	
	B	D	A	B	C	B	D	A	B
Cause	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*
Population (000)	139 059	342 576	411 889	218 458	243 184	293 819	1241806	154 354	1532933
IIA14. Bladder cancer	5	18	87	16	22	10	56	18	37
IIA15. Lymphomas/multiple myeloma	11	9	80	17	15	22	116	22	36
IIA16. Leukaemia	6	9	49	14	18	21	54	12	84
IIC. Diabetes mellitus	383	712	975	396	706	726	2391	392	1774
IIG. Cardiovascular disease									
IIG3. Ischaemic heart disease[a]	126	292	694	395	823	210	1407	141	490
IIG4. Cerebrovascular disease[b]	47	115	258	200	543	145	512	97	1298
IIH. Respiratory diseases									
IIH1. Chronic obstructive pulmonary disease	55	77	479	110	204	135	514	137	2762
IIH2. Asthma	368	953	1118	423	233	451	3109	594	3565
IIIA. Unintentional injuries									
IIIA1. Road traffic accidents[c]	596	1390	493	330	875	1300	5022	158	3757
IIIA2. Poisonings[c]	49	130	138	85	108	103	438	45	469
IIIA3. Falls[c]	556	2229	2041	1350	1792	1159	10068	607	7068
IIIA4. Fires[c]	162	922	69	279	431	311	4704	28	455
IIIA5. Drownings[c]	2	5	3	3	3	4	20	2	23
IIIA6. Other unintentional injuries[c]	878	3657	1375	1793	1866	1489	15258	481	7103
IIIB. Intentional injuries									
IIIB1. Self-inflicted injuries[c]	137	383	901	258	638	330	2403	392	3005
IIIB2. Violence[c]	308	552	104	291	1849	337	1319	24	1511

a Acute myocardial infarction episode

b First-ever stroke

c Cases severe enough to warrant medical attention

Annex Table 12: Point prevalence[a] ('000s) for selected causes: by sex, age and WHO subregion[b,]: 2000, Version 2

	Global total			AFRO		AMRO		
	Both sexes	Males	Females	D	E	A	B	D
Cause	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*
Population (000)	6045017	3045295	2999722	294 078	345 515	325 183	430 932	71 230
IA3. HIV/AIDS	37627	19594	18032	5112	21726	1059	1358	378
IA9. Tropical-cluster diseases								
IA9b. Chagas disease	9614	4456	5157	0	0	181	6734	2698
IA10. Leprosy	897	458	439	58	51	3	86	1
IE. Nutritional deficiencies								
IE1. Protein-energy malnutrition[d]	227077	117220	109857	24102	28465	654	5524	2966
IE2. Iodine deficiency[e]	1014402	447607	566796	63646	86288	55420	26357	15686
IE3. Vitamin A deficiency[f]	1783	715	1068	3	4	45	228	45
IE4. Iron-deficiency anaemia[g]	485	325	159	14	29	18	13	2
II**C. Diabetes mellitus**	175136	83179	91957	4410	2795	20420	11844	1747
II**E. Neuro-psychiatric conditions**								
IIE1. Unipolar depressive disorders[h]	148283	57020	91263	5394	6336	10855	11324	1728
IIE2. Bipolar affective disorder	27265	13709	13556	1060	1242	1610	1932	288
IIE3. Schizophrenia	24319	12291	12027	785	985	1539	1810	269
IIE4. Epilepsy	37217	19301	17916	3403	3224	1747	5617	766
IIE5. Alcohol use disorders	75442	62863	12580	700	2182	10198	12281	1109
IIE6. Alzheimer and other dementias	37427	14532	22894	721	796	6773	2122	179
IIE7. Parkinson disease	5069	2227	2842	57	76	922	108	15
IIE8. Multiple sclerosis	2290	987	1304	78	77	171	153	23
IIE9. Drug use disorders	15065	11516	3549	1345	1574	2068	2004	547
IIE10. Post-traumatic stress disorder	22157	6127	16030	887	1062	1346	1327	194
IIE11. Obsessive-compulsive disorder	26410	11256	15153	1775	2085	1425	3012	449
IIE12. Panic disorder	28407	9736	18671	1210	1422	1526	2113	331
IIE13. Insomnia (primary)	28174	11844	16330	979	1135	2478	2397	343
IIE14. Migraine	302097	78398	223698	4596	6154	27598	23793	4196
II**G. Cardiovascular diseases**								
IIG3. Ischaemic heart disease[i]	39245	19839	19406	1076	1103	3397	2213	234
IIG4. Cerebrovascular disease[j]	38608	20806	17802	694	900	2967	2035	174
II**H. Respiratory diseases**								
IIH1. COPD	59891	35906	23986	623	487	5930	5153	156
IIH2. Asthma	220621	118928	101693	10775	15294	18923	27164	4501
II**L. Musculoskeletal diseases**								
IIL1. Rheumatoid arthritis	21727	6124	15603	466	537	1846	2073	299
IIL2. Osteoarthritis	136691	51290	85401	4021	4575	11077	7617	973
III Injuries – Long-term sequelae								
Injured spinal cord[k]	18322	12325	5997	824	679	699	2552	259
Intracranial injury[k]	17567	10558	7009	847	757	570	1671	218
Amputated arm[k]	5424	3540	1884	447	590	124	452	71
Amputated foot/leg[k]	14608	7846	6761	1302	2031	203	756	131

a. Average point prevalence of cases or episodes as defined in Annex Tables 3 and 4.

b See list of Member States by WHO Region and mortality stratum (Annex Table 1).

c Cases of high intensity infection

d Cases of wasting and stunting in children < 5 years

e Cases of goitre

f Cases of xerophthalmia

g Cases of mild, moderate and severe anaemia

h Cases of major depressive episodes.

i. Angina pectoris

j First-ever stroke survivors

k All external causes

Annex Table 12 (continued): Point prevalence[a] ('000s) for selected causes: by sex, age and WHO subregion[b]: 2000, Version 2

	EMRO		EURO			SEARO		WPRO	
	B	D	A	B	C	B	D	A	B
Cause	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*
Population (000)	139 059	342 576	411 889	218 458	243 184	293 819	1241806	154 354	1532933
IA3. HIV/AIDS	14	499	556	28	420	910	3984	32	1549
IA9. Tropical-cluster diseases									
IA9b. Chagas disease	0	0	0	0	0	0	0	0	0
IA10. Leprosy	0	83	0	0	0	24	556	1	35
IE. Nutritional deficiencies									
IE1. Protein-energy malnutrition[d]	3040	25756	662	3317	1370	10670	84448	306	35796
IE2. Iodine deficiency[e]	31231	71988	32086	34923	24855	61173	307311	12429	191010
IE3. Vitamin A deficiency[f]	4	6	48	652	684	7	18	17	22
IE4. Iron-deficiency anaemia[g]	3	26	62	11	22	27	192	14	53
II**C. Diabetes mellitus**	5847	10289	17856	6541	11825	10826	35549	8245	26941
II**E. Neuro-psychiatric conditions**									
IIE1. Unipolar depressive disorders[h]	3321	7943	11908	5745	6149	6131	32081	2717	36652
IIE2. Bipolar affective disorder	564	1319	2038	1019	1217	1294	5271	764	7645
IIE3. Schizophrenia	536	1129	2032	1094	1143	1383	4225	815	6573
IIE4. Epilepsy	570	2031	2112	919	1021	1639	7337	852	5980
IIE5. Alcohol use disorders	3	622	8696	2363	6864	1943	4856	2161	21464
IIE6. Alzheimer and other dementias	486	947	10803	1302	3020	715	3413	1725	4425
IIE7. Parkinson disease	64	507	1298	247	317	92	483	417	465
IIE8. Multiple sclerosis	43	103	253	85	110	106	418	71	599
IIE9. Drug use disorders	972	538	1946	409	852	291	1097	714	710
IIE10. Post-traumatic stress disorder	474	1142	1616	844	959	1188	4596	640	5883
IIE11. Obsessive-compulsive disorder	943	1684	1796	1563	1777	914	4315	429	4243
IIE12. Panic disorder	622	1470	1927	1052	1179	1472	5699	722	7662
IIE13. Insomnia (primary)	272	1162	3482	1016	1490	956	6436	1308	4718
IIE14. Migraine	3976	10516	52364	10475	12539	11485	52188	11307	70912
II**G. Cardiovascular diseases**									
IIG3. Ischaemic heart disease[i]	756	2077	3411	2199	4254	1169	10514	882	5959
IIG4. Cerebrovascular disease[j]	438	908	4487	2064	5007	1354	4227	2011	11340
II**H. Respiratory diseases**									
IIH1. COPD	658	732	7572	1445	2476	1348	5713	2299	25300
IIH2. Asthma	4041	10006	18885	5758	3796	5731	36125	10376	49247
II**L. Musculoskeletal diseases**									
IIL1.Rheumatoid arthritis	356	796	2787	1276	1907	565	3322	856	4640
IIL2.Osteoarthritis	1474	3846	16713	8466	13402	6732	17391	6651	33751
III Injuries – Long-term sequelae									
Injured spinal cord[k]	535	952	746	623	1034	787	4262	264	4106
Intracranial injury[k]	567	1141	601	626	742	779	4777	209	4061
Amputated arm[k]	108	470	130	212	267	254	1430	52	818
Amputated foot/leg[k]	209	1349	167	529	705	936	4789	70	1432

a. Average point prevalence of cases or episodes as defined in Annex Tables 3 and 4.

b See list of Member States by WHO Region and mortality stratum (Annex Table 1).

c Cases of high intensity infection

d Cases of wasting and stunting in children < 5 years

e Cases of goitre

f Cases of xerophthalmia

g Cases of mild, moderate and severe anaemia

h Cases of major depressive episodes.

i. Angina pectoris

j First-ever stroke survivors

k All external causes

Annex Table 13: YLD by cause, sex and WHO subregions[a], 2000, Version 2

	Global total						AFRO		AMRO		
	Both sexes		Males		Females		D	E	A	B	D
Cause[b]	*(000)*	*%*	*(000)*	*%*	*(000)*	*%*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*
Population (000)	6045172		3045372		2999800		294 099	345 533	325 186	430 951	71 235
All Causes	**535 445**	**100**	**266 387**	**100**	**269 058**	**100**	**34 629**	**43 626**	**26 146**	**42 964**	**7 158**
I. Communicable, maternal, perinatal nutritional conditions	**113 725**	**21.2**	**49 287**	**18.5**	**64 438**	**23.9**	**14 221**	**19 176**	**1 565**	**5 758**	**1 521**
A. Infectious & parasitic diseases	**56 128**	**10.5**	**28 160**	**10.6**	**27 968**	**10.4**	**8 527**	**12 528**	**690**	**2 930**	**681**
1. **Tuberculosis**	5 141	1.0	3 269	1.2	1 872	0.7	419	520	4	107	58
2. **STDs excluding HIV**	6 828	1.3	1 867	0.7	4 961	1.8	876	1 004	70	446	50
a. Syphilis	361	0.1	167	0.1	194	0.1	65	76	2	38	6
b. Chlamydia	3 261	0.6	290	0.1	2 971	1.1	328	388	53	232	14
c. Gonorrhoea	3 207	0.6	1 410	0.5	1 796	0.7	483	539	16	176	29
3. **HIV/AIDS**	8 278	1.5	4 367	1.6	3 911	1.5	1 112	4 598	165	289	99
4. **Diarrhoeal diseases**	5 679	1.1	2 899	1.1	2 780	1.0	416	490	93	501	93
5. **Childhood-cluster diseases**	2 822	0.5	1 408	0.5	1 414	0.5	470	383	50	156	37
a. Pertussis	2 559	0.5	1 274	0.5	1 284	0.5	439	362	50	150	36
b. Poliomyelitis	165	0.0	84	0.0	81	0.0	12	4	0	6	1
c. Diphtheria	0	0.0	0	0.0	0	0.0	0	0	0	0	0
d. Measles	93	0.0	47	0.0	46	0.0	17	17	0	0	0
e. Tetanus	5	0.0	3	0.0	3	0.0	1	1	0	0	0
6. **Meningitis**	1 400	0.3	711	0.3	690	0.3	196	157	20	138	27
7. **Hepatitis**[c]	82	0.0	51	0.0	31	0.0	8	11	8	1	1
8. **Malaria**	4 738	0.9	2 389	0.9	2 349	0.9	1 712	1 790	0	58	11
9. **Tropical-cluster diseases**	9 028	1.7	6 279	2.4	2 749	1.0	2 103	2 174	11	436	125
a. Trypanosomiasis	91	0.0	56	0.0	35	0.0	39	46	0	0	0
b. Chagas disease	459	0.1	231	0.1	228	0.1	0	0	8	343	108
c. Schistosomiasis	1 488	0.3	880	0.3	607	0.2	585	688	1	57	9
d. Leishmaniasis	498	0.1	324	0.1	174	0.1	77	45	1	27	4
e. Lymphatic filariasis	5 531	1.0	4 231	1.6	1 300	0.5	896	988	0	8	1
f. Onchocerciasis	960	0.2	555	0.2	405	0.2	506	407	0	1	2
10. **Leprosy**	113	0.0	57	0.0	55	0.0	7	6	0	11	0
11. **Dengue**	6	0.0	3	0.0	3	0.0	0	0	0	0	0
12. **Japanese encephalitis**	306	0.1	157	0.1	149	0.1	0	0	0	0	0
13. **Trachoma**	3 891	0.7	1 052	0.4	2 838	1.1	688	798	0	0	0
14. **Intestinal nematode infections**	4 333	0.8	2 215	0.8	2 119	0.8	262	309	10	493	91
a. Ascariasis	1 036	0.2	530	0.2	506	0.2	44	52	2	129	25
b. Trichuriasis	1 574	0.3	809	0.3	766	0.3	48	57	5	239	46
c. Hookworm disease	1 723	0.3	876	0.3	847	0.3	171	201	3	125	20
B. Respiratory infections	**5 883**	**1.1**	**3 147**	**1.2**	**2 735**	**1.0**	**369**	**430**	**72**	**498**	**98**
1. Lower respiratory infections	4 345	0.8	2 360	0.9	1 985	0.7	263	304	24	381	76
2. Upper respiratory infections	225	0.0	113	0.0	111	0.0	12	14	11	15	2
3. Otitis media	1 313	0.2	674	0.3	639	0.2	94	111	36	102	20
C. Maternal conditions	**15 694**	**2.9**	**0**	**0.0**	**15 694**	**5.8**	**1 858**	**2 278**	**174**	**745**	**249**
D. Perinatal conditions	**14 819**	**2.8**	**7 507**	**2.8**	**7 312**	**2.7**	**1 268**	**1 376**	**186**	**1 135**	**250**
E. Nutritional deficiencies	**21 201**	**4.0**	**10 473**	**3.9**	**10 728**	**4.0**	**2 199**	**2 565**	**443**	**450**	**242**
1. Protein-energy malnutrition	9 632	1.8	4 941	1.9	4 692	1.7	1 278	1 301	17	208	65
2. Iodine deficiency	2 275	0.4	1 633	0.6	643	0.2	165	559	5	65	22
3. Vitamin A deficiency	33	0.0	17	0.0	16	0.0	6	10	0	0	0
4. Iron-deficiency anaemia	9 199	1.7	3 865	1.5	5 334	2.0	750	695	420	172	154
II. Noncommunicable diseases	**362 510**	**67.7**	**179 768**	**67.5**	**182 742**	**67.9**	**15 955**	**19 104**	**23 364**	**31 677**	**4 877**
A. Malignant neoplasms	**4 416**	**0.8**	**1 591**	**0.6**	**2 825**	**1.1**	**105**	**172**	**523**	**276**	**39**
1. Mouth and oropharynx cancers	197	0.0	143	0.1	54	0.0	5	11	7	6	1
2. Oesophagus cancer	75	0.0	49	0.0	26	0.0	1	3	4	2	0
3. Stomach cancer	196	0.0	123	0.0	73	0.0	3	3	5	9	2
4. Colon and rectum cancers	584	0.1	308	0.1	276	0.1	8	10	84	25	2
5. Liver cancer	105	0.0	69	0.0	35	0.0	4	5	3	2	0
6. Pancreas cancer	49	0.0	27	0.0	22	0.0	1	1	7	3	0
7. Trachea/bronchus/lung cancers	315	0.1	227	0.1	88	0.0	2	3	53	12	1
8. Melanoma & other skin cancers	22	0.0	13	0.0	9	0.0	1	1	6	1	0
9. Breast cancer	805	0.2	0	0.0	805	0.3	13	24	150	44	4
10. Cervix uteri cancer	564	0.1	0	0.0	564	0.2	27	53	15	25	9
11. Corpus uteri cancer	256	0.0	0	0.0	256	0.1	3	5	22	58	10
12. Ovary cancer	164	0.0	0	0.0	164	0.1	5	9	13	9	2
13. Prostate cancer	138	0.0	138	0.1	0	0.0	7	6	36	10	1
14. Bladder cancer	202	0.0	155	0.1	47	0.0	7	8	26	6	1

Annex Table 13 (continued): YLD by cause, sex and WHO subregions[a], 2000, Version 2

	EMRO		EURO			SEARO		WPRO	
	B	D	A	B	C	B	D	A	B
Cause[b]	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*
Population (000)	139 071	342 584	411 910	218 473	243 192	293 821	1241813	154 358	1532946
All Causes	**11 077**	**34 584**	**28 348**	**17 343**	**22 132**	**25 959**	**122 431**	**9 049**	**109 997**
I. Communicable, maternal, perinatal nutritional conditions	**2 172**	**9 615**	**1 169**	**1 913**	**1 668**	**5 667**	**29 607**	**446**	**19 229**
A. Infectious & parasitic diseases	**744**	**3 544**	**500**	**704**	**682**	**2 528**	**12 732**	**190**	**9 148**
1. **Tuberculosis**	30	365	19	64	129	521	1 809	16	1 081
2. **STDs excluding HIV**	130	578	77	136	119	438	2 412	34	457
a. Syphilis	3	24	2	2	1	28	94	1	20
b. Chlamydia	92	278	61	93	79	246	1 102	25	270
c. Gonorrhoea	36	276	15	42	39	164	1 217	7	167
3. **HIV/AIDS**	2	109	62	6	177	188	978	4	491
4. **Diarrhoeal diseases**	118	366	98	93	62	213	1 212	38	1 886
5. **Childhood-cluster diseases**	45	339	63	60	27	131	575	34	451
a. Pertussis	38	316	63	56	26	116	494	34	378
b. Poliomyelitis	5	14	0	2	0	11	60	0	51
c. Diphtheria	0	0	0	0	0	0	0	0	0
d. Measles	3	8	0	2	1	4	19	0	21
e. Tetanus	0	1	0	0	0	0	2	0	0
6. **Meningitis**	22	120	27	13	13	92	388	6	180
7. **Hepatitis[c]**	2	2	6	3	4	3	14	8	11
8. **Malaria**	48	201	0	17	0	131	668	0	102
9. **Tropical-cluster diseases**	44	688	0	7	0	243	2 777	4	417
a. Trypanosomiasis	0	5	0	0	0	0	0	0	0
b. Chagas disease	0	0	0	0	0	0	0	0	0
c. Schistosomiasis	25	105	0	0	0	2	1	0	13
d. Leishmaniasis	15	60	0	5	0	6	254	0	4
e. Lymphatic filariasis	4	472	0	1	0	236	2 522	3	400
f. Onchocerciasis	0	45	0	0	0	0	0	0	0
10. **Leprosy**	0	11	0	0	0	3	70	0	5
11. **Dengue**	0	1	0	0	0	1	4	0	1
12. **Japanese encephalitis**	0	6	0	0	0	25	47	0	228
13. **Trachoma**	230	353	0	0	0	79	161	1	1 580
14. **Intestinal nematode infections**	47	195	0	7	0	452	918	6	1 543
a. Ascariasis	20	34	0	7	0	103	82	1	537
b. Trichuriasis	1	31	0	0	0	189	192	2	766
c. Hookworm disease	26	131	0	0	0	159	645	2	240
B. Respiratory infections	**182**	**562**	**79**	**117**	**69**	**357**	**1 624**	**29**	**1 396**
1. Lower respiratory infections	137	446	29	75	36	278	1 250	11	1 036
2. Upper respiratory infections	5	14	14	8	9	13	54	5	48
3. Otitis media	40	103	36	34	24	66	321	13	312
C. Maternal conditions	**336**	**1 726**	**150**	**281**	**233**	**766**	**4 663**	**57**	**2 180**
D. Perinatal conditions	**407**	**1 561**	**159**	**276**	**106**	**810**	**4 398**	**55**	**2 832**
E. Nutritional deficiencies	**502**	**2 222**	**281**	**537**	**578**	**1 206**	**6 189**	**115**	**3 672**
1. Protein-energy malnutrition	102	1 189	17	93	45	490	3 241	9	1 578
2. Iodine deficiency	88	366	2	163	322	56	352	0	111
3. Vitamin A deficiency	0	3	0	1	0	0	12	0	2
4. Iron-deficiency anaemia	312	663	259	260	186	659	2 583	105	1 979
II. Noncommunicable diseases	**7 554**	**20 287**	**25 802**	**13 455**	**17 732**	**17 696**	**76 010**	**8 132**	**80 864**
A. Malignant neoplasms	**52**	**148**	**772**	**202**	**288**	**184**	**647**	**265**	**743**
1. Mouth and oropharynx cancers	1	10	25	5	10	10	74	5	26
2. Oesophagus cancer	1	2	8	2	3	1	11	4	34
3. Stomach cancer	2	2	21	8	19	2	11	26	82
4. Colon and rectum cancers	6	9	156	24	39	24	27	69	102
5. Liver cancer	1	1	6	1	3	3	4	7	64
6. Pancreas cancer	0	1	11	3	7	1	2	5	7
7. Trachea/bronchus/lung cancers	3	4	57	16	27	8	27	17	85
8. Melanoma & other skin cancers	0	0	5	1	2	0	1	3	1
9. Breast cancer	8	23	185	40	58	47	84	52	74
10. Cervix uteri cancer	8	34	13	12	15	39	254	4	54
11. Corpus uteri cancer	4	3	25	25	30	5	10	6	52
12. Ovary cancer	1	7	16	6	13	15	37	5	27
13. Prostate cancer	1	1	39	5	8	2	4	14	4
14. Bladder cancer	3	16	58	12	19	5	12	10	21

Annex Table 13 (continued): YLD by cause, sex and WHO subregions[a], 2000, Version 2

Cause[b]	Global total						AFRO		AMRO		
	Both sexes		Males		Females		D	E	A	B	D
	(000)	*%*	*(000)*	*%*	*(000)*	*%*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*
15. Lymphomas/multiple myeloma	127	0.0	76	0.0	51	0.0	7	7	23	6	1
16. Leukaemia	109	0.0	59	0.0	49	0.0	2	3	13	7	1
B. Other neoplasms	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0**	**0**	**0**	**0**
C. Diabetes mellitus	**7 490**	**1.4**	**3 590**	**1.3**	**3 900**	**1.4**	**144**	**106**	**836**	**563**	**85**
D. Endocrine disorders	**4 113**	**0.8**	**1 737**	**0.7**	**2 375**	**0.9**	**346**	**424**	**524**	**819**	**141**
E. Neuro-psychiatric conditions	**176 968**	**33.1**	**85 076**	**31.9**	**91 891**	**34.2**	**6 958**	**8 314**	**12 879**	**17 483**	**2 671**
1. Unipolar depressive disorders	64 708	12.1	25 808	9.7	38 900	14.5	1 885	2 206	5 104	5 584	866
2. Bipolar affective disorder	13 559	2.5	6 856	2.6	6 704	2.5	744	875	512	1 025	172
3. Schizophrenia	15 370	2.9	7 849	2.9	7 521	2.8	728	841	514	1 216	203
4. Epilepsy	3 988	0.7	2 043	0.8	1 945	0.7	254	373	139	581	100
5. Alcohol use disorders	18 221	3.4	15 220	5.7	3 001	1.1	189	569	2 363	3 143	300
6. Alzheimer and other dementias	10 805	2.0	4 716	1.8	6 089	2.3	261	289	1 244	713	54
7. Parkinson disease	1 170	0.2	555	0.2	615	0.2	19	26	174	32	4
8. Multiple sclerosis	1 217	0.2	532	0.2	684	0.3	50	40	72	90	14
9. Drug use disorders	5 409	1.0	4 152	1.6	1 257	0.5	526	616	668	748	214
10. Post-traumatic stress disorder	3 216	0.6	892	0.3	2 324	0.9	139	163	179	200	31
11. Obsessive-compulsive disorder	4 752	0.9	2 045	0.8	2 707	1.0	370	436	222	534	84
12. Panic disorder	6 568	1.2	2 230	0.8	4 339	1.6	337	397	266	493	83
13. Insomnia (primary)	3 349	0.6	1 442	0.5	1 907	0.7	132	155	261	310	47
14. Migraine	7 543	1.4	2 045	0.8	5 498	2.0	182	241	498	729	146
F. Sense organ diseases	**37 787**	**7.1**	**18 299**	**6.9**	**19 488**	**7.2**	**2 022**	**2 176**	**1 653**	**1 741**	**296**
1. Glaucoma	1 123	0.2	444	0.2	678	0.3	154	159	15	86	6
2. Cataracts	8 044	1.5	3 791	1.4	4 253	1.6	838	837	40	295	114
4. Hearing loss, adult onset	25 291	4.7	12 885	4.8	12 406	4.6	915	1 047	1 379	1 135	145
G. Cardiovascular diseases	**19 687**	**3.7**	**10 669**	**4.0**	**9 017**	**3.4**	**562**	**704**	**1 295**	**1 042**	**110**
1. Rheumatic heart disease	673	0.1	259	0.1	414	0.2	30	37	9	18	3
3. Ischaemic heart disease	5 200	1.0	2 650	1.0	2 550	0.9	179	179	350	267	22
4. Cerebrovascular disease	8 368	1.6	4 638	1.7	3 730	1.4	178	241	546	495	44
5. Inflammatory heart diseases	1 517	0.3	921	0.3	597	0.2	82	117	91	96	12
H. Respiratory diseases	**35 215**	**6.6**	**19 816**	**7.4**	**15 399**	**5.7**	**1 874**	**2 541**	**1 970**	**3 418**	**474**
1. COPD	12 850	2.4	7 948	3.0	4 902	1.8	75	99	872	838	28
2. Asthma	11 337	2.1	6 216	2.3	5 121	1.9	755	1 031	704	1 409	251
I. Digestive diseases	**22 641**	**4.2**	**12 671**	**4.8**	**9 970**	**3.7**	**1 436**	**1 742**	**872**	**1 899**	**331**
1. Peptic ulcer disease	1 435	0.3	968	0.4	467	0.2	52	65	19	44	8
2. Cirrhosis of the liver	3 790	0.7	2 680	1.0	1 110	0.4	129	159	117	297	86
3. Appendicitis	99	0.0	59	0.0	40	0.0	3	4	8	8	1
J. Genito-urinary diseases	**5 425**	**1.0**	**3 507**	**1.3**	**1 917**	**0.7**	**427**	**518**	**294**	**526**	**81**
1. Nephritis and nephrosis	700	0.1	378	0.1	321	0.1	60	76	10	59	11
2. Benign prostatic hypertrophy	2 117	0.4	2 117	0.8	0	0.0	101	118	83	187	25
K. Skin diseases	**1 350**	**0.3**	**743**	**0.3**	**607**	**0.2**	**184**	**222**	**48**	**120**	**24**
L. Musculoskeletal diseases	**28 045**	**5.2**	**12 321**	**4.6**	**15 724**	**5.8**	**936**	**1 029**	**1 783**	**2 000**	**275**
1. Rheumatoid arthritis	4 478	0.8	1 272	0.5	3 206	1.2	120	132	302	507	79
2. Osteoarthritis	16 018	3.0	6 476	2.4	9 542	3.5	608	672	1 026	939	113
M. Congenital anomalies	**11 385**	**2.1**	**5 869**	**2.2**	**5 516**	**2.1**	**727**	**880**	**341**	**979**	**205**
N. Oral conditions	**7 988**	**1.5**	**3 877**	**1.5**	**4 111**	**1.5**	**236**	**276**	**347**	**809**	**144**
1. Dental caries	4 626	0.9	2 345	0.9	2 281	0.8	176	207	179	693	128
2. Periodontal disease	289	0.1	146	0.1	143	0.1	14	16	13	20	3
3. Edentulism	2 986	0.6	1 364	0.5	1 621	0.6	42	47	153	92	12
III. Injuries	**59 210**	**11.1**	**37 331**	**14.0**	**21 878**	**8.1**	**4 453**	**5 346**	**1 218**	**5 530**	**760**
A. Unintentional injuries	**48 110**	**9.0**	**29 232**	**11.0**	**18 878**	**7.0**	**3 132**	**3 613**	**986**	**3 210**	**585**
1. Road traffic accidents	9 121	1.7	5 783	2.2	3 339	1.2	700	784	232	770	97
2. Poisonings	154	0.0	79	0.0	75	0.0	7	7	9	14	2
3. Falls	10 081	1.9	6 078	2.3	4 004	1.5	251	279	256	505	101
4. Fires	2 954	0.6	1 484	0.6	1 470	0.5	249	301	26	63	11
5. Drownings	48	0.0	26	0.0	23	0.0	2	2	2	4	1
6. Other unintentional injuries	25 751	4.8	15 783	5.9	9 968	3.7	1 923	2 240	460	1 855	373
B. Intentional injuries	**11 099**	**2.1**	**8 099**	**3.0**	**3 001**	**1.1**	**1 321**	**1 733**	**231**	**2 320**	**175**
1. Self-inflicted injuries	1 576	0.3	553	0.2	1 023	0.4	24	60	57	36	19
2. Violence	7 136	1.3	5 780	2.2	1 356	0.5	967	898	174	2 261	152
3. War	2 344	0.4	1 731	0.6	613	0.2	330	776	0	20	4

Annex Table 13 (continued): YLD by cause, sex and WHO subregions[a], 2000, Version 2

	EMRO		EURO			SEARO		WPRO	
	B	D	A	B	C	B	D	A	B
Cause[b]	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*
15. Lymphomas/multiple myeloma	2	5	24	4	6	6	15	7	13
16. Leukaemia	2	4	16	4	5	4	12	3	30
B. Other neoplasms	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
C. Diabetes mellitus	**254**	**462**	**626**	**250**	**445**	**532**	**1 585**	**267**	**1 334**
D. Endocrine disorders	**129**	**223**	**435**	**129**	**123**	**101**	**90**	**162**	**468**
E. Neuro-psychiatric conditions	**3 785**	**9 245**	**13 631**	**6 519**	**8 143**	**7 804**	**36 255**	**3 598**	**39 685**
1. Unipolar depressive disorders	1 178	3 508	4 083	2 559	2 620	2 831	16 811	1 004	14 470
2. Bipolar affective disorder	348	808	623	469	448	699	2 897	244	3 696
3. Schizophrenia	431	949	593	557	436	1 021	3 384	234	4 264
4. Epilepsy	71	238	157	86	85	227	988	49	640
5. Alcohol use disorders	1	162	1 943	556	1 578	497	1 232	471	5 215
6. Alzheimer and other dementias	158	343	2 870	413	922	303	1 311	488	1 434
7. Parkinson disease	20	161	212	55	71	33	150	89	124
8. Multiple sclerosis	29	65	106	44	46	60	248	27	325
9. Drug use disorders	384	209	607	146	285	106	410	233	257
10. Post-traumatic stress disorder	77	180	207	124	130	177	691	81	837
11. Obsessive-compulsive disorder	182	327	258	269	283	169	806	63	749
12. Panic disorder	171	397	325	242	236	360	1 446	129	1 686
13. Insomnia (primary)	33	151	345	116	158	114	824	129	574
14. Migraine	145	396	752	255	239	340	1 665	155	1 800
F. Sense organ diseases	**848**	**2 374**	**2 217**	**1 007**	**1 811**	**2 909**	**10 290**	**794**	**7 652**
1. Glaucoma	66	137	43	37	102	33	68	7	211
2. Cataracts	169	673	19	85	236	581	2 876	17	1 265
4. Hearing loss, adult onset	553	1 420	1 844	756	1 295	2 138	6 737	650	5 277
G. Cardiovascular diseases	**323**	**1 103**	**1 502**	**967**	**1 683**	**755**	**4 930**	**538**	**4 174**
1. Rheumatic heart disease	16	43	12	21	24	11	208	5	235
3. Ischaemic heart disease	101	337	274	243	435	174	1 874	73	691
4. Cerebrovascular disease	109	233	787	421	907	344	1 051	371	2 643
5. Inflammatory heart diseases	13	87	62	92	125	69	447	18	204
H. Respiratory diseases	**475**	**1 579**	**2 209**	**985**	**1 153**	**1 191**	**6 325**	**791**	**10 230**
1. COPD	99	154	1 153	369	563	402	1 439	289	6 470
2. Asthma	250	648	622	263	137	318	2 174	338	2 437
I. Digestive diseases	**294**	**1 769**	**1 105**	**1 061**	**1 167**	**1 214**	**5 279**	**398**	**4 075**
1. Peptic ulcer disease	11	74	46	45	64	56	510	10	430
2. Cirrhosis of the liver	33	210	186	159	206	228	1 098	53	830
3. Appendicitis	2	6	11	5	7	3	21	3	16
J. Genito-urinary diseases	**163**	**292**	**289**	**229**	**395**	**233**	**730**	**117**	**1 131**
1. Nephritis and nephrosis	22	58	13	20	17	28	171	5	149
2. Benign prostatic hypertrophy	61	112	116	59	63	103	404	49	637
K. Skin diseases	**9**	**93**	**59**	**27**	**92**	**165**	**194**	**14**	**98**
L. Musculoskeletal diseases	**456**	**1 125**	**2 337**	**1 427**	**1 824**	**1 425**	**4 818**	**932**	**7 679**
1. Rheumatoid arthritis	95	208	400	264	332	110	810	130	990
2. Osteoarthritis	220	560	1 471	917	1 205	905	2 412	639	4 333
M. Congenital anomalies	**360**	**1 237**	**268**	**265**	**264**	**537**	**3 209**	**116**	**1 996**
N. Oral conditions	**407**	**636**	**352**	**388**	**346**	**646**	**1 660**	**140**	**1 600**
1. Dental caries	197	358	200	191	165	247	1 043	76	766
2. Periodontal disease	5	18	16	10	13	15	95	6	45
3. Edentulism	203	254	133	185	168	380	503	58	757
III. Injuries	**1 352**	**4 683**	**1 377**	**1 974**	**2 732**	**2 596**	**16 814**	**470**	**9 905**
A. Unintentional injuries	**1 156**	**3 962**	**1 267**	**1 647**	**1 793**	**2 080**	**15 522**	**426**	**8 732**
1. Road traffic accidents	310	676	237	147	350	644	2 242	70	1 863
2. Poisonings	4	7	12	6	14	9	26	4	32
3. Falls	228	757	384	427	495	413	3 240	128	2 618
4. Fires	54	319	17	93	108	97	1 451	8	158
5. Drownings	1	3	2	2	2	2	10	1	15
6. Other unintentional injuries	559	2 200	614	972	825	915	8 553	216	4 046
B. Intentional injuries	**196**	**721**	**111**	**327**	**939**	**517**	**1 292**	**44**	**1 173**
1. Self-inflicted injuries	14	69	67	31	105	27	611	33	423
2. Violence	154	236	43	129	668	160	572	10	713
3. War	29	412	1	162	163	328	87	0	33

a See list of Member States by WHO Region and mortality stratum (Annex Table 1).

b Estimates for specific causes may not sum to broader cause groupings due to omission of residual categories.

c Does not include liver cancer and cirrhosis deaths resulting from chronic hepatitis virus infection.

Annex Table 14: YLL by cause, sex and WHO subregion, 2000, Version 2

Cause[b]	Global total						AFRO		AMRO		
	Both sexes		Males		Females		D	E	A	B	D
	(000)	*%*	*(000)*	*%*	*(000)*	*%*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*
Population (000)	6 045 172		3 045 372		2 999 80(		294 099	345 533	325 186	430 951	71 235
All Causes	**918 193**	**100**	**494 676**	**100**	**423 517**	**100**	**109 812**	**159 754**	**20 139**	**37 473**	**9 895**
I. Communicable, maternal, perinatal nutritional conditions	**495 303**	**53.9**	**251 448**	**50.8**	**243 855**	**57.6**	**88 029**	**131 053**	**1 737**	**11 354**	**4 907**
A. Infectious & parasitic diseases	**295 983**	**32.2**	**152 893**	**30.9**	**143 090**	**33.8**	**60 688**	**98 617**	**753**	**4 495**	**2 651**
1. **Tuberculosis**	30 161	3.3	18 715	3.8	11 446	2.7	3 366	4 160	12	435	354
2. **STDs excluding HIV**	5 458	0.6	2 915	0.6	2 543	0.6	1 348	1 825	3	38	23
a. Syphilis	5 062	0.6	2 833	0.6	2 229	0.5	1 300	1 763	0	33	22
b. Chlamydia	165	0.0	0	0.0	165	0.0	31	35	0	0	0
c. Gonorrhoea	52	0.0	1	0.0	51	0.0	17	25	0	0	0
3. **HIV/AIDS**	71 714	7.8	36 528	7.4	35 186	8.3	10 342	45 750	320	862	621
4. **Diarrhoeal diseases**	57 666	6.3	29 143	5.9	28 523	6.7	7 429	13 001	9	1 414	771
5. **Childhood-cluster diseases**	47 970	5.2	23 953	4.8	24 017	5.7	14 968	10 601	2	35	226
a. Pertussis	10 420	1.1	5 207	1.1	5 214	1.2	3 201	2 547	0	27	203
b. Poliomyelitis	23	0.0	13	0.0	10	0.0	5	2	2	1	0
c. Diphtheria	188	0.0	97	0.0	91	0.0	24	24	0	2	7
d. Measles	27 814	3.0	13 891	2.8	13 922	3.3	9 329	6 576	0	0	0
e. Tetanus	9 525	1.0	4 745	1.0	4 780	1.1	2 409	1 452	0	4	16
6. **Meningitis**	5 114	0.6	2 785	0.6	2 330	0.6	253	332	28	329	162
7. **Hepatitis**[c]	2 349	0.3	1 481	0.3	867	0.2	163	217	72	83	45
8. **Malaria**	37 342	4.1	17 552	3.5	19 791	4.7	16 307	15 929	0	29	9
9. **Tropical-cluster diseases**	3 668	0.4	2 244	0.5	1 423	0.3	957	886	0	133	91
a. Trypanosomiasis	1 479	0.2	955	0.2	524	0.1	750	708	0	0	0
b. Chagas disease	183	0.0	97	0.0	86	0.0	0	0	0	92	91
c. Schistosomiasis	224	0.0	171	0.0	53	0.0	62	50	0	12	0
d. Leishmaniasis	1 779	0.2	1 019	0.2	759	0.2	144	129	0	29	0
e. Lymphatic filariasis	3	0.0	2	0.0	1	0.0	0	0	0	0	0
f. Onchocerciasis	0	0.0	0	0.0	0	0.0	0	0	0	0	0
10. **Leprosy**	65	0.0	42	0.0	23	0.0	1	2	0	6	0
11. **Dengue**	592	0.1	254	0.1	338	0.1	2	4	0	21	63
12. **Japanese encephalitis**	511	0.1	231	0.0	280	0.1	0	0	0	0	0
13. **Trachoma**	2	0.0	2	0.0	0	0.0	0	0	0	0	0
14. **Intestinal nematode infections**	371	0.0	196	0.0	175	0.0	27	61	0	17	11
a. Ascariasis	168	0.0	85	0.0	84	0.0	4	19	0	15	2
b. Trichuriasis	87	0.0	50	0.0	37	0.0	3	14	0	0	0
c. Hookworm disease	63	0.0	35	0.0	28	0.0	19	26	0	0	0
B. Respiratory infections	**89 000**	**9.7**	**46 795**	**9.5**	**42 205**	**10.0**	**12 735**	**16 430**	**353**	**1 623**	**885**
1. Lower respiratory infections	86 815	9.5	45 694	9.2	41 121	9.7	12 565	16 197	349	1 582	833
2. Upper respiratory infections	2 029	0.2	1 024	0.2	1 005	0.2	135	175	3	32	51
3. Otitis media	156	0.0	77	0.0	79	0.0	35	58	1	9	1
C. Maternal conditions	**14 964**	**1.6**	**0**	**0.0**	**14 964**	**3.5**	**2 872**	**4 180**	**15**	**403**	**262**
D. Perinatal conditions	**83 604**	**9.1**	**46 296**	**9.4**	**37 308**	**8.8**	**9 809**	**9 371**	**588**	**4 132**	**849**
E. Nutritional deficiencies	**11 751**	**1.3**	**5 463**	**1.1**	**6 288**	**1.5**	**1 925**	**2 456**	**28**	**699**	**261**
1. Protein-energy malnutrition	7 203	0.8	3 639	0.7	3 564	0.8	1 311	1 615	17	548	211
2. Iodine deficiency	216	0.0	100	0.0	116	0.0	46	73	0	0	0
3. Vitamin A deficiency	938	0.1	381	0.1	558	0.1	372	428	0	0	0
4. Iron-deficiency anaemia	2 673	0.3	991	0.2	1 683	0.4	183	337	9	118	46
II. Noncommunicable diseases	**302 391**	**32.9**	**162 320**	**32.8**	**140 072**	**33.1**	**13 339**	**16 218**	**15 016**	**17 907**	**3 509**
A. Malignant neoplasms	**71 683**	**7.8**	**38 977**	**7.9**	**32 706**	**7.7**	**2 807**	**3 631**	**5 012**	**4 159**	**844**
1. Mouth and oropharynx cancers	3 477	0.4	2 516	0.5	961	0.2	125	267	94	117	13
2. Oesophagus cancer	4 056	0.4	2 624	0.5	1 432	0.3	58	230	128	128	8
3. Stomach cancer	7 854	0.9	4 869	1.0	2 985	0.7	207	196	133	379	138
4. Colon and rectum cancers	5 121	0.6	2 746	0.6	2 375	0.6	134	153	505	256	35
5. Liver cancer	7 127	0.8	4 987	1.0	2 139	0.5	423	485	124	172	65
6. Pancreas cancer	1 883	0.2	1 062	0.2	821	0.2	32	50	241	137	21
7. Trachea/bronchus/lung cancers	10 880	1.2	7 809	1.6	3 071	0.7	96	154	1 340	458	26
8. Melanoma & other skin cancers	644	0.1	363	0.1	281	0.1	36	56	117	58	11
9. Breast cancer	5 399	0.6	23	0.0	5 376	1.3	171	270	511	373	55
10. Cervix uteri cancer	3 290	0.4	0	0.0	3 290	0.8	256	440	78	268	65
11. Corpus uteri cancer	666	0.1	0	0.0	666	0.2	10	15	65	109	44
12. Ovary cancer	1 419	0.2	0	0.0	1 419	0.3	41	80	135	84	15
13. Prostate cancer	1 329	0.1	1 329	0.3	0	0.0	139	115	176	145	31
14. Bladder cancer	1 321	0.1	873	0.2	448	0.1	65	56	83	45	6

Annex Table 14 (continued): YLL by cause, sex and WHO subregion, 2000, Version 2

	EMRO		EURO			SEARO		WPRO	
	B	D	A	B	C	B	D	A	B
Cause[b]	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*
Population (000)	139 071	342 584	411 910	218 473	243 192	293 821	1241813	154 358	1532946
All Causes	**11 644**	**75 999**	**24 983**	**21 650**	**37 220**	**35 965**	**233 528**	**7 323**	**132 809**
I. Communicable, maternal, perinatal nutritional conditions	**3 604**	**50 246**	**1 467**	**5 406**	**3 320**	**15 166**	**139 601**	**614**	**38 800**
A. Infectious & parasitic diseases	**1 571**	**27 551**	**476**	**1 785**	**1 797**	**8 726**	**71 902**	**167**	**14 803**
1. **Tuberculosis**	143	2 410	38	412	1 072	2 495	10 840	30	4 394
2. **STDs excluding HIV**	4	542	2	14	11	32	1 478	1	137
a. Syphilis	0	518	1	5	5	26	1 275	0	113
b. Chlamydia	1	9	0	0	0	1	74	0	14
c. Gonorrhoea	0	2	0	0	0	0	2	0	5
3. **HIV/AIDS**	7	1 381	156	37	365	1 265	9 487	4	1 117
4. **Diarrhoeal diseases**	612	9 009	11	543	80	1 283	20 851	6	2 647
5. **Childhood-cluster diseases**	18	7 197	3	255	4	1 499	11 332	1	1 830
a. Pertussis	4	2 170	1	5	1	45	2 157	0	58
b. Poliomyelitis	0	3	1	5	1	0	1	0	0
c. Diphtheria	0	13	0	1	1	8	100	0	7
d. Measles	7	3 191	1	237	0	1 208	6 054	1	1 209
e. Tetanus	7	1 820	0	6	0	238	3 018	0	556
6. **Meningitis**	94	561	39	293	85	454	1 787	7	688
7. **Hepatitis**[c]	52	128	43	72	36	271	620	47	500
8. **Malaria**	0	1 668	2	1	0	325	2 777	0	295
9. **Tropical-cluster diseases**	7	220	0	1	0	0	1 308	0	64
a. Trypanosomiasis	0	21	0	0	0	0	0	0	0
b. Chagas disease	0	0	0	0	0	0	0	0	0
c. Schistosomiasis	2	57	0	0	0	0	0	0	41
d. Leishmaniasis	5	142	0	0	0	0	1 306	0	23
e. Lymphatic filariasis	0	0	0	1	0	0	2	0	0
f. Onchocerciasis	0	0	0	0	0	0	0	0	0
10. **Leprosy**	0	3	0	0	0	20	31	0	2
11. **Dengue**	9	18	0	0	0	78	275	0	121
12. **Japanese encephalitis**	0	18	0	0	0	0	271	0	222
13. **Trachoma**	0	0	0	0	0	0	1	0	0
14. **Intestinal nematode infections**	0	15	0	0	0	44	134	0	62
a. Ascariasis	0	6	0	0	0	16	75	0	29
b. Trichuriasis	0	4	0	0	0	12	40	0	14
c. Hookworm disease	0	2	0	0	0	14	0	0	1
B. Respiratory infections	**938**	**10 158**	**605**	**2 066**	**843**	**2 159**	**28 723**	**358**	**11 122**
1. Lower respiratory infections	916	10 008	593	2 023	795	2 086	28 298	354	10 216
2. Upper respiratory infections	21	143	12	42	45	59	409	4	897
3. Otitis media	0	7	1	0	2	15	16	0	10
C. Maternal conditions	**98**	**1 933**	**7**	**46**	**32**	**629**	**3 866**	**3**	**620**
D. Perinatal conditions	**879**	**9 511**	**358**	**1 453**	**614**	**3 036**	**31 262**	**76**	**11 668**
E. Nutritional deficiencies	**118**	**1 092**	**20**	**56**	**35**	**615**	**3 848**	**10**	**587**
1. Protein-energy malnutrition	83	732	8	24	14	306	1 910	7	417
2. Iodine deficiency	1	22	0	0	0	1	68	0	5
3. Vitamin A deficiency	0	37	0	0	0	4	88	0	9
4. Iron-deficiency anaemia	32	212	9	25	20	195	1 372	1	113
II. Noncommunicable diseases	**5 464**	**18 344**	**20 576**	**13 742**	**24 210**	**13 856**	**65 874**	**5 514**	**68 821**
A. Malignant neoplasms	**1 016**	**2 694**	**7 850**	**3 097**	**5 146**	**2 866**	**9 776**	**2 465**	**20 321**
1. Mouth and oropharynx cancers	41	200	254	103	204	190	1 250	52	567
2. Oesophagus cancer	37	113	233	74	128	43	698	88	2 090
3. Stomach cancer	129	139	435	284	687	96	524	376	4 132
4. Colon and rectum cancers	57	132	876	251	525	253	336	302	1 306
5. Liver cancer	44	132	271	103	128	359	468	267	4 085
6. Pancreas cancer	19	36	371	116	199	58	126	142	333
7. Trachea/bronchus/lung cancers	119	214	1 615	622	975	359	1 278	399	3 224
8. Melanoma & other skin cancers	4	17	137	43	64	11	26	23	40
9. Breast cancer	76	253	817	252	455	347	739	150	930
10. Cervix uteri cancer	44	182	94	100	148	206	1 051	31	327
11. Corpus uteri cancer	4	8	107	53	103	24	25	26	74
12. Ovary cancer	14	44	215	76	144	114	200	51	206
13. Prostate cancer	12	35	296	59	89	38	105	44	47
14. Bladder cancer	22	191	196	75	104	41	253	29	155

Annex Table 14 (continued): YLL by cause, sex and WHO subregion, 2000, Version 2

Cause[b]	Global total						AFRO		AMRO		
	Both sexes		Males		Females		D	E	A	B	D
	(000)	*%*	*(000)*	*%*	*(000)*	*%*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*
15. Lymphomas/multiple myeloma	4 258	0.5	2 307	0.5	1 950	0.5	344	347	353	221	50
16. Leukaemia	4 608	0.5	2 658	0.5	1 951	0.5	142	224	240	355	89
B. Other neoplasms	**1 771**	**0.2**	**898**	**0.2**	**873**	**0.2**	**30**	**43**	**105**	**136**	**22**
C. Diabetes mellitus	**7 668**	**0.8**	**3 591**	**0.7**	**4 077**	**1.0**	**205**	**344**	**536**	**1 193**	**139**
D. Endocrine disorders	**4 151**	**0.5**	**2 036**	**0.4**	**2 115**	**0.5**	**392**	**457**	**274**	**352**	**113**
E. Neuro-psychiatric conditions	**12 061**	**1.3**	**7 376**	**1.5**	**4 685**	**1.1**	**690**	**878**	**866**	**869**	**205**
1. Unipolar depressive disorders	171	0.0	85	0.0	86	0.0	0	0	4	2	0
2. Bipolar affective disorder	8	0.0	3	0.0	5	0.0	0	0	1	1	0
3. Schizophrenia	353	0.0	188	0.0	165	0.0	5	6	4	6	0
4. Epilepsy	2 758	0.3	1 545	0.3	1 213	0.3	188	303	34	140	47
5. Alcohol use disorders	1 447	0.2	1 249	0.3	198	0.0	54	167	120	244	38
6. Alzheimer and other dementias	1 397	0.2	567	0.1	830	0.2	18	27	209	38	3
7. Parkinson disease	397	0.0	199	0.0	198	0.0	8	11	53	18	3
8. Multiple sclerosis	212	0.0	86	0.0	126	0.0	0	0	41	11	1
9. Drug use disorders	1 657	0.2	1 366	0.3	291	0.1	48	9	122	49	14
10. Post-traumatic stress disorder	1	0.0	0	0.0	0	0.0	0	0	0	0	0
11. Obsessive-compulsive disorder	0	0.0	0	0.0	0	0.0	0	0	0	0	0
12. Panic disorder	0	0.0	0	0.0	0	0.0	0	0	0	0	0
13. Insomnia (primary)	0	0.0	0	0.0	0	0.0	0	0	0	0	0
14. Migraine	0	0.0	0	0.0	0	0.0	0	0	0	0	0
F. Sense organ diseases	**52**	**0.0**	**20**	**0.0**	**33**	**0.0**	**6**	**7**	**1**	**2**	**2**
1. Glaucoma	1	0.0	1	0.0	0	0.0	0	0	0	0	0
2. Cataracts	3	0.0	0	0.0	3	0.0	1	1	0	0	0
4. Hearing loss, adult onset	0	0.0	0	0.0	0	0.0	0	0	0	0	0
G. Cardiovascular diseases	**122 368**	**13.3**	**65 032**	**13.1**	**57 335**	**13.5**	**4 694**	**5 153**	**5 620**	**6 011**	**896**
1. Rheumatic heart disease	5 365	0.6	2 309	0.5	3 056	0.7	317	360	33	89	8
3. Ischaemic heart disease	52 427	5.7	30 496	6.2	21 931	5.2	1 397	1 431	3 156	2 364	271
4. Cerebrovascular disease	36 719	4.0	18 506	3.7	18 214	4.3	1 295	1 532	890	1 788	233
5. Inflammatory heart diseases	4 092	0.4	2 315	0.5	1 777	0.4	267	288	310	315	12
H. Respiratory diseases	**26 751**	**2.9**	**14 246**	**2.9**	**12 505**	**3.0**	**1 176**	**1 517**	**987**	**1 373**	**286**
1. COPD	16 521	1.8	8 694	1.8	7 827	1.8	417	497	660	490	58
2. Asthma	3 524	0.4	1 722	0.3	1 802	0.4	164	241	69	122	27
I. Digestive diseases	**27 077**	**2.9**	**15 286**	**3.1**	**11 791**	**2.8**	**1 357**	**1 694**	**819**	**1 792**	**450**
1. Peptic ulcer disease	3 078	0.3	1 897	0.4	1 181	0.3	88	128	33	89	32
2. Cirrhosis of the liver	11 071	1.2	6 929	1.4	4 142	1.0	384	450	373	840	186
3. Appendicitis	314	0.0	182	0.0	132	0.0	20	28	6	29	13
J. Genito-urinary diseases	**9 361**	**1.0**	**5 151**	**1.0**	**4 210**	**1.0**	**811**	**962**	**296**	**511**	**186**
1. Nephritis and nephrosis	7 451	0.8	4 087	0.8	3 364	0.8	573	681	228	425	159
2. Benign prostatic hypertrophy	238	0.0	238	0.0	0	0.0	21	22	2	6	2
K. Skin diseases	**791**	**0.1**	**421**	**0.1**	**370**	**0.1**	**142**	**194**	**24**	**48**	**17**
L. Musculoskeletal diseases	**1 195**	**0.1**	**428**	**0.1**	**767**	**0.2**	**73**	**90**	**112**	**129**	**21**
1. Rheumatoid arthritis	210	0.0	62	0.0	149	0.0	4	5	17	16	2
2. Osteoarthritis	14	0.0	5	0.0	9	0.0	0	0	3	2	1
M. Congenital anomalies	**17 431**	**1.9**	**8 840**	**1.8**	**8 592**	**2.0**	**956**	**1 248**	**363**	**1 329**	**327**
N. Oral conditions	**31**	**0.0**	**17**	**0.0**	**13**	**0.0**	**0**	**0**	**1**	**3**	**2**
1. Dental caries	0	0.0	0	0.0	0	0.0	0	0	0	0	0
2. Periodontal disease	1	0.0	1	0.0	0	0.0	0	0	0	0	0
3. Edentulism	0	0.0	0	0.0	0	0.0	0	0	0	0	0
III. Injuries	**120 500**	**13.1**	**80 909**	**16.4**	**39 591**	**9.3**	**8 444**	**12 482**	**3 385**	**8 212**	**1 480**
A. Unintentional injuries	**82 454**	**9.0**	**53 770**	**10.9**	**28 684**	**6.8**	**6 067**	**7 083**	**2 092**	**4 095**	**1 103**
1. Road traffic accidents	28 940	3.2	20 699	4.2	8 241	1.9	2 038	2 682	1 131	1 967	361
2. Poisonings	7 454	0.8	4 721	1.0	2 734	0.6	475	645	311	58	19
3. Falls	5 584	0.6	3 773	0.8	1 811	0.4	147	183	120	183	27
4. Fires	8 090	0.9	3 256	0.7	4 834	1.1	572	513	72	84	26
5. Drownings	11 992	1.3	8 318	1.7	3 674	0.9	1 624	1 333	113	485	111
6. Other unintentional injuries	20 394	2.2	13 004	2.6	7 390	1.7	1 211	1 727	345	1 318	559
B. Intentional injuries	**38 046**	**4.1**	**27 139**	**5.5**	**10 907**	**2.6**	**2 377**	**5 399**	**1 294**	**4 117**	**376**
1. Self-inflicted injuries	18 596	2.0	11 229	2.3	7 366	1.7	256	393	762	599	79
2. Violence	13 059	1.4	10 083	2.0	2 976	0.7	1 227	1 943	520	3 390	296
3. War	6 032	0.7	5 551	1.1	480	0.1	894	3 062	0	104	0

Annex Table 14 (continued): YLL by cause, sex and WHO subregion, 2000, Version 2

	EMRO		EURO			SEARO		WPRO	
	B	D	A	B	C	B	D	A	B
Cause[b]	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*
15. Lymphomas/multiple myeloma	127	328	417	163	131	201	1 081	106	388
16. Leukaemia	100	333	312	180	206	237	745	94	1 352
B. Other neoplasms	**34**	**184**	**178**	**38**	**65**	**333**	**269**	**68**	**264**
C. Diabetes mellitus	**151**	**344**	**453**	**268**	**236**	**540**	**1 748**	**106**	**1 405**
D. Endocrine disorders	**113**	**400**	**206**	**49**	**61**	**326**	**449**	**67**	**892**
E. Neuro-psychiatric conditions	**354**	**1 045**	**1 130**	**445**	**742**	**652**	**2 622**	**160**	**1 402**
1. Unipolar depressive disorders	0	12	7	0	1	0	141	1	3
2. Bipolar affective disorder	0	0	1	0	0	1	1	0	3
3. Schizophrenia	3	17	6	7	11	25	184	3	76
4. Epilepsy	53	230	90	105	109	108	886	18	446
5. Alcohol use disorders	15	22	194	49	115	62	172	10	186
6. Alzheimer and other dementias	8	45	253	29	43	133	319	26	247
7. Parkinson disease	4	6	72	9	9	20	34	16	134
8. Multiple sclerosis	4	5	51	16	40	2	19	3	19
9. Drug use disorders	91	391	168	32	165	20	445	18	85
10. Post-traumatic stress disorder	0	0	0	0	0	0	0	0	0
11. Obsessive-compulsive disorder	0	0	0	0	0	0	0	0	0
12. Panic disorder	0	0	0	0	0	0	0	0	0
13. Insomnia (primary)	0	0	0	0	0	0	0	0	0
14. Migraine	0	0	0	0	0	0	0	0	0
F. Sense organ diseases	**1**	**8**	**1**	**1**	**4**	**2**	**14**	**0**	**3**
1. Glaucoma	0	0	0	0	0	0	0	0	0
2. Cataracts	0	0	0	0	0	0	0	0	0
4. Hearing loss, adult onset	0	0	0	0	0	0	0	0	0
G. Cardiovascular diseases	**2 545**	**7 486**	**7 718**	**7 398**	**14 563**	**5 225**	**29 589**	**1 827**	**23 644**
1. Rheumatic heart disease	51	449	66	114	193	213	2 101	15	1 355
3. Ischaemic heart disease	1 373	3 366	3 611	3 403	7 884	2 029	15 609	691	5 842
4. Cerebrovascular disease	368	1 596	1 798	2 037	4 366	1 585	6 711	714	11 807
5. Inflammatory heart diseases	64	288	218	227	480	184	849	60	529
H. Respiratory diseases	**186**	**1 471**	**987**	**698**	**979**	**1 165**	**7 422**	**258**	**8 246**
1. COPD	73	645	619	357	622	470	4 834	86	6 692
2. Asthma	50	318	90	105	151	225	1 398	39	523
I. Digestive diseases	**240**	**1 779**	**1 348**	**945**	**1 523**	**1 248**	**7 305**	**305**	**6 274**
1. Peptic ulcer disease	26	151	88	106	154	194	1 167	24	797
2. Cirrhosis of the liver	98	736	743	519	814	599	3 030	149	2 150
3. Appendicitis	5	13	5	4	14	23	74	1	78
J. Genito-urinary diseases	**177**	**787**	**258**	**330**	**326**	**583**	**1 948**	**106**	**2 081**
1. Nephritis and nephrosis	96	675	182	251	203	450	1 665	92	1 771
2. Benign prostatic hypertrophy	4	17	4	4	11	9	105	0	32
K. Skin diseases	**12**	**48**	**29**	**9**	**42**	**76**	**112**	**5**	**34**
L. Musculoskeletal diseases	**15**	**45**	**93**	**23**	**75**	**104**	**151**	**39**	**225**
1. Rheumatoid arthritis	1	5	20	5	27	15	27	11	53
2. Osteoarthritis	0	0	4	0	1	0	0	0	2
M. Congenital anomalies	**621**	**2 053**	**323**	**442**	**448**	**735**	**4 451**	**109**	**4 027**
N. Oral conditions	**0**	**2**	**1**	**0**	**0**	**2**	**17**	**0**	**2**
1. Dental caries	0	0	0	0	0	0	0	0	0
2. Periodontal disease	0	0	0	0	0	0	0	0	0
3. Edentulism	0	0	0	0	0	0	0	0	0
III. Injuries	**2 577**	**7 409**	**2 940**	**2 502**	**9 689**	**6 943**	**28 053**	**1 194**	**25 189**
A. Unintentional injuries	**2 120**	**5 408**	**1 915**	**1 737**	**6 063**	**5 227**	**21 065**	**576**	**17 901**
1. Road traffic accidents	991	1 711	1 051	506	1 323	3 456	4 972	259	6 492
2. Poisonings	62	374	121	126	1 916	175	1 614	39	1 519
3. Falls	120	370	254	120	373	312	1 643	58	1 674
4. Fires	188	727	47	73	584	233	4 556	19	397
5. Drownings	155	709	77	181	629	352	2 205	66	3 954
6. Other unintentional injuries	603	1 517	366	731	1 239	700	6 077	136	3 866
B. Intentional injuries	**457**	**2 001**	**1 025**	**765**	**3 626**	**1 716**	**6 988**	**618**	**7 288**
1. Self-inflicted injuries	274	717	906	480	1 966	886	5 130	592	5 555
2. Violence	164	435	104	189	1 307	399	1 396	25	1 663
3. War	10	790	13	81	328	428	274	0	49

a See list of Member States by WHO Region and mortality stratum (Annex Table 1).

b Estimates for specific causes may not sum to broader cause groupings due to omission of residual categories.

c Does not include liver cancer and cirrhosis deaths resulting from chronic hepatitis virus infection.

Annex Table 15: DALYs by cause, sex and WHO subregions[a], 2000, Version 2

	Global total						AFRO		AMRO		
	Both sexes		Males		Females		D	E	A	B	D
Cause[b]	*(000)*	*%*	*(000)*	*%*	*(000)*	*%*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*
Population (000)	6045017		3045295		2999722		294 078	345 515	325 183	430 932	71 230
All Causes	**1453617**	**100**	**761 042**	**100**	**692 575**	**100**	**144 442**	**203 380**	**46 284**	**80 425**	**17 050**
I. Communicable, maternal, perinatal nutritional conditions	**609 028**	**41.9**	**300 735**	**39.5**	**308 292**	**44.5**	**102 250**	**150 230**	**3 302**	**17 111**	**6 427**
A. Infectious & parasitic diseases	**352 111**	**24.2**	**181 054**	**23.8**	**171 058**	**24.7**	**69 215**	**111 144**	**1 443**	**7 425**	**3 332**
1. **Tuberculosis**	35 302	2.4	21 984	2.9	13 318	1.9	3 785	4 680	15	542	412
2. **STDs excluding HIV**	12 287	0.8	4 783	0.6	7 504	1.1	2 224	2 828	73	484	73
a. Syphilis	5 423	0.4	3 000	0.4	2 423	0.3	1 365	1 840	2	71	28
b. Chlamydia	3 426	0.2	290	0.0	3 136	0.5	360	424	53	232	14
c. Gonorrhoea	3 259	0.2	1 412	0.2	1 847	0.3	499	564	16	176	30
3. **HIV/AIDS**	79 992	5.5	40 895	5.4	39 096	5.6	11 454	50 349	485	1 150	720
4. **Diarrhoeal diseases**	63 346	4.4	32 043	4.2	31 303	4.5	7 846	13 491	102	1 915	863
5. **Childhood-cluster diseases**	50 792	3.5	25 361	3.3	25 431	3.7	15 438	10 984	53	191	263
a. Pertussis	12 979	0.9	6 481	0.9	6 498	0.9	3 641	2 909	51	177	239
b. Poliomyelitis	189	0.0	97	0.0	91	0.0	17	7	2	7	1
c. Diphtheria	188	0.0	97	0.0	91	0.0	24	24	0	2	7
d. Measles	27 906	1.9	13 938	1.8	13 968	2.0	9 346	6 593	0	0	0
e. Tetanus	9 531	0.7	4 748	0.6	4 783	0.7	2 410	1 452	0	4	16
6. **Meningitis**	6 515	0.4	3 495	0.5	3 019	0.4	449	489	49	468	189
7. **Hepatitis B**[c]	1 621	0.1	1 028	0.1	593	0.1	112	150	21	58	37
Hepatitis C	809	0.1	504	0.1	306	0.0	58	77	60	26	8
8. **Malaria**	42 080	2.9	19 941	2.6	22 139	3.2	18 019	17 719	0	88	20
9. **Tropical-cluster diseases**	12 696	0.9	8 523	1.1	4 172	0.6	3 060	3 060	11	569	216
a. Trypanosomiasis	1 570	0.1	1 011	0.1	559	0.1	789	754	0	0	0
b. Chagas disease	642	0.0	328	0.0	314	0.0	0	0	8	435	199
c. Schistosomiasis	1 712	0.1	1 051	0.1	661	0.1	647	738	1	70	9
d. Leishmaniasis	2 277	0.2	1 344	0.2	933	0.1	221	174	1	55	5
e. Lymphatic filariasis	5 534	0.4	4 234	0.6	1 301	0.2	896	988	0	8	1
f. Onchocerciasis	960	0.1	556	0.1	405	0.1	506	407	0	1	2
10. **Leprosy**	178	0.0	100	0.0	78	0.0	8	8	0	17	0
11. **Dengue**	598	0.0	257	0.0	341	0.0	2	4	0	21	63
12. **Japanese encephalitis**	817	0.1	388	0.1	429	0.1	0	0	0	0	0
13. **Trachoma**	3 892	0.3	1 054	0.1	2 838	0.4	688	798	0	0	0
14. **Intestinal nematode infections**	4 705	0.3	2 411	0.3	2 294	0.3	289	370	11	509	102
a. Ascariasis	1 204	0.1	615	0.1	589	0.1	48	71	3	144	26
b. Trichuriasis	1 662	0.1	859	0.1	803	0.1	51	70	5	239	46
c. Hookworm disease	1 786	0.1	911	0.1	875	0.1	190	227	3	125	20
B. Respiratory infections	**94 883**	**6.5**	**49 942**	**6.6**	**44 940**	**6.5**	**13 105**	**16 860**	**425**	**2 121**	**983**
1. Lower respiratory infections	91 160	6.3	48 054	6.3	43 106	6.2	12 829	16 501	373	1 963	908
2. Upper respiratory infections	2 253	0.2	1 137	0.1	1 116	0.2	147	189	15	47	53
3. Otitis media	1 469	0.1	751	0.1	718	0.1	129	170	38	111	21
C. Maternal conditions	**30 658**	**2.1**	**0**	**0.0**	**30 658**	**4.4**	**4 730**	**6 458**	**188**	**1 149**	**510**
D. Perinatal conditions	**98 424**	**6.8**	**53 803**	**7.1**	**44 621**	**6.4**	**11 077**	**10 747**	**774**	**5 267**	**1 099**
E. Nutritional deficiencies	**32 952**	**2.3**	**15 936**	**2.1**	**17 016**	**2.5**	**4 124**	**5 021**	**472**	**1 149**	**503**
1. Protein-energy malnutrition	16 836	1.2	8 580	1.1	8 256	1.2	2 589	2 916	33	757	277
2. Iodine deficiency	2 492	0.2	1 733	0.2	759	0.1	211	631	5	65	22
3. Vitamin A deficiency	972	0.1	398	0.1	574	0.1	378	438	0	0	0
4. Iron-deficiency anaemia	11 872	0.8	4 856	0.6	7 017	1.0	934	1 033	430	291	201
II. Noncommunicable diseases	**664 880**	**45.7**	**342 067**	**44.9**	**322 814**	**46.6**	**29 295**	**35 322**	**38 380**	**49 572**	**8 383**
A. Malignant neoplasms	**76 100**	**5.2**	**40 568**	**5.3**	**35 532**	**5.1**	**2 912**	**3 803**	**5 534**	**4 435**	**883**
1. Mouth and oropharynx cancers	3 674	0.3	2 659	0.3	1 015	0.1	130	278	101	123	14
2. Oesophagus cancer	4 131	0.3	2 673	0.4	1 458	0.2	58	233	132	130	8
3. Stomach cancer	8 050	0.6	4 992	0.7	3 058	0.4	210	199	138	388	140
4. Colon and rectum cancers	5 705	0.4	3 054	0.4	2 651	0.4	142	163	589	281	37
5. Liver cancer	7 231	0.5	5 056	0.7	2 175	0.3	427	490	126	174	66
6. Pancreas cancer	1 932	0.1	1 089	0.1	843	0.1	33	51	248	140	21
7. Trachea/bronchus/lung cancers	11 195	0.8	8 036	1.1	3 158	0.5	98	157	1 394	470	26
8. Melanoma & other skin cancers	666	0.0	376	0.0	290	0.0	37	57	123	60	12
9. Breast cancer	6 203	0.4	23	0.0	6 181	0.9	184	294	660	417	58
10. Cervix uteri cancer	3 854	0.3	0	0.0	3 854	0.6	283	494	93	293	74
11. Corpus uteri cancer	923	0.1	0	0.0	923	0.1	13	20	87	167	53
12. Ovary cancer	1 582	0.1	0	0.0	1 582	0.2	46	89	147	93	16
13. Prostate cancer	1 467	0.1	1 467	0.2	0	0.0	146	121	211	155	32
14. Bladder cancer	1 523	0.1	1 028	0.1	496	0.1	73	64	109	51	6

Annex Table 15 (continued): DALYs by cause, sex and WHO subregions[a], 2000, Version 2

	EMRO		EURO			SEARO		WPRO	
	B	D	A	B	C	B	D	A	B
Cause[b]	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*
Population (000)	139 059	342 576	411 889	218 458	243 184	293 819	1241806	154 354	1532933
All Causes	**22 721**	**110 583**	**53 330**	**38 992**	**59 348**	**61 924**	**355 959**	**16 371**	**242 806**
I. Communicable, maternal, perinatal nutritional conditions	**5 775**	**59 861**	**2 635**	**7 319**	**4 988**	**20 833**	**169 207**	**1 061**	**58 029**
A. Infectious & parasitic diseases	**2 314**	**31 095**	**976**	**2 489**	**2 479**	**11 255**	**84 635**	**358**	**23 951**
1. **Tuberculosis**	173	2 775	57	476	1 201	3 016	12 649	46	5 475
2. **STDs excluding HIV**	135	1 120	80	150	130	470	3 891	34	594
a. Syphilis	3	541	3	6	7	54	1 369	1	133
b. Chlamydia	93	286	61	93	79	248	1 176	25	284
c. Gonorrhoea	36	279	15	42	39	164	1 219	7	172
3. **HIV/AIDS**	9	1 489	218	43	542	1 453	10 465	8	1 608
4. **Diarrhoeal diseases**	730	9 375	109	636	142	1 497	22 063	44	4 533
5. **Childhood-cluster diseases**	63	7 536	66	314	31	1 630	11 907	35	2 281
a. Pertussis	42	2 486	64	61	27	161	2 652	34	436
b. Poliomyelitis	5	17	1	7	1	11	61	0	52
c. Diphtheria	0	13	0	1	1	8	100	0	7
d. Measles	10	3 199	1	239	2	1 212	6 074	1	1 230
e. Tetanus	7	1 820	0	6	0	238	3 020	0	556
6. **Meningitis**	117	681	66	307	99	546	2 176	14	868
7. **Hepatitis B[c]**	38	88	18	45	25	192	450	21	364
Hepatitis C	16	42	31	30	15	82	184	33	147
8. **Malaria**	48	1 868	2	18	0	455	3 445	0	397
9. **Tropical-cluster diseases**	51	907	0	8	0	244	4 085	4	482
a. Trypanosomiasis	0	26	0	0	0	0	0	0	0
b. Chagas disease	0	0	0	0	0	0	0	0	0
c. Schistosomiasis	27	162	0	0	0	2	1	0	54
d. Leishmaniasis	20	202	0	6	0	6	1 560	0	28
e. Lymphatic filariasis	4	472	0	2	0	236	2 524	3	400
f. Onchocerciasis	0	45	0	0	0	0	0	0	0
10. **Leprosy**	0	14	0	0	0	23	101	0	7
11. **Dengue**	9	19	0	0	0	79	278	0	121
12. **Japanese encephalitis**	0	24	0	0	0	25	319	0	450
13. **Trachoma**	230	353	0	0	0	79	163	1	1 580
14. **Intestinal nematode infections**	47	210	0	8	0	496	1 052	6	1 605
a. Ascariasis	20	41	0	7	0	120	158	1	566
b. Trichuriasis	1	35	0	0	0	201	232	2	779
c. Hookworm disease	26	133	0	0	0	173	645	2	241
B. Respiratory infections	**1 120**	**10 721**	**685**	**2 182**	**912**	**2 517**	**30 348**	**387**	**12 518**
1. Lower respiratory infections	1 053	10 454	621	2 098	831	2 364	29 548	365	11 252
2. Upper respiratory infections	26	157	26	50	54	72	463	10	945
3. Otitis media	40	110	37	35	26	81	337	13	322
C. Maternal conditions	**434**	**3 658**	**157**	**326**	**265**	**1 394**	**8 529**	**60**	**2 800**
D. Perinatal conditions	**1 286**	**11 073**	**517**	**1 729**	**720**	**3 846**	**35 660**	**131**	**14 501**
E. Nutritional deficiencies	**621**	**3 314**	**301**	**593**	**613**	**1 821**	**10 036**	**125**	**4 259**
1. Protein-energy malnutrition	185	1 921	25	117	59	795	5 151	17	1 995
2. Iodine deficiency	89	388	2	164	322	58	420	0	116
3. Vitamin A deficiency	0	40	0	1	0	5	100	0	11
4. Iron-deficiency anaemia	344	875	269	286	205	854	3 955	105	2 092
II. Noncommunicable diseases	**13 018**	**38 631**	**46 378**	**27 196**	**41 939**	**31 552**	**141 885**	**13 646**	**149 684**
A. Malignant neoplasms	**1 068**	**2 842**	**8 623**	**3 299**	**5 434**	**3 049**	**10 424**	**2 731**	**21 064**
1. Mouth and oropharynx cancers	42	210	279	108	214	200	1 324	58	593
2. Oesophagus cancer	38	114	241	77	130	44	709	92	2 124
3. Stomach cancer	131	141	456	293	706	97	535	402	4 213
4. Colon and rectum cancers	63	141	1 032	275	563	277	363	371	1 408
5. Liver cancer	45	133	278	104	131	363	471	274	4 149
6. Pancreas cancer	19	37	382	119	206	59	129	147	340
7. Trachea/bronchus/lung cancers	122	218	1 672	638	1 003	367	1 305	416	3 308
8. Melanoma & other skin cancers	4	18	142	44	67	11	26	26	41
9. Breast cancer	84	276	1 002	291	513	394	823	202	1 004
10. Cervix uteri cancer	53	216	107	112	163	244	1 305	35	381
11. Corpus uteri cancer	8	11	132	77	133	29	35	32	126
12. Ovary cancer	16	51	231	82	156	129	237	56	233
13. Prostate cancer	13	36	335	63	97	40	110	58	51

14. Bladder cancer	25	207	254	87	123	46	264	39	176		

Annex Table 15 (continued): DALYs by cause, sex and WHO subregions[a], 2000, Version 2

	Global total						AFRO		AMRO		
	Both sexes		Males		Females		D	E	A	B	D
Cause[b]	*(000)*	*%*	*(000)*	*%*	*(000)*	*%*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*
15. Lymphomas/multiple myeloma	4 384	0.3	2 383	0.3	2 001	0.3	351	355	375	227	51
16. Leukaemia	4 717	0.3	2 717	0.4	2 000	0.3	144	228	254	362	90
B. Other neoplasms	**1 771**	**0.1**	**898**	**0.1**	**873**	**0.1**	**30**	**43**	**105**	**136**	**22**
C. Diabetes mellitus	**15 158**	**1.0**	**7 181**	**0.9**	**7 977**	**1.2**	**349**	**451**	**1 372**	**1 756**	**223**
D. Endocrine disorders	**8 264**	**0.6**	**3 773**	**0.5**	**4 491**	**0.6**	**738**	**881**	**798**	**1 172**	**254**
E. Neuro-psychiatric conditions	**189 029**	**13.0**	**92 453**	**12.1**	**96 576**	**13.9**	**7 648**	**9 192**	**13 745**	**18 352**	**2 876**
1. Unipolar depressive disorders	64 878	4.5	25 893	3.4	38 986	5.6	1 885	2 206	5 108	5 586	866
2. Bipolar affective disorder	13 567	0.9	6 859	0.9	6 708	1.0	744	875	512	1 025	172
3. Schizophrenia	15 723	1.1	8 038	1.1	7 686	1.1	733	847	518	1 223	204
4. Epilepsy	6 746	0.5	3 588	0.5	3 159	0.5	442	676	172	721	148
5. Alcohol use disorders	19 667	1.4	16 469	2.2	3 199	0.5	243	736	2 482	3 387	338
6. Alzheimer and other dementias	12 202	0.8	5 283	0.7	6 919	1.0	279	316	1 454	751	57
7. Parkinson disease	1 568	0.1	755	0.1	813	0.1	27	37	227	50	7
8. Multiple sclerosis	1 429	0.1	618	0.1	810	0.1	50	41	113	100	15
9. Drug use disorders	7 066	0.5	5 518	0.7	1 548	0.2	574	625	790	796	228
10. Post-traumatic stress disorder	3 217	0.2	892	0.1	2 324	0.3	139	163	179	200	31
11. Obsessive-compulsive disorder	4 752	0.3	2 045	0.3	2 707	0.4	370	436	222	534	84
12. Panic disorder	6 568	0.5	2 230	0.3	4 339	0.6	337	397	266	493	83
13. Insomnia (primary)	3 349	0.2	1 442	0.2	1 907	0.3	132	155	261	310	47
14. Migraine	7 543	0.5	2 045	0.3	5 498	0.8	182	241	498	729	146
F. Sense organ diseases	**37 840**	**2.6**	**18 319**	**2.4**	**19 521**	**2.8**	**2 027**	**2 183**	**1 654**	**1 743**	**298**
1. Glaucoma	1 124	0.1	445	0.1	678	0.1	154	159	15	86	6
2. Cataracts	8 047	0.6	3 791	0.5	4 256	0.6	839	838	40	295	114
4. Hearing loss, adult onset	25 291	1.7	12 885	1.7	12 406	1.8	915	1 047	1 379	1 135	145
G. Cardiovascular diseases	**142 054**	**9.8**	**75 702**	**9.9**	**66 353**	**9.6**	**5 256**	**5 857**	**6 916**	**7 052**	**1 006**
1. Rheumatic heart disease	6 039	0.4	2 568	0.3	3 470	0.5	347	397	42	107	11
2. Hypertensive heart disease	7 174	0.5	3 555	0.5	3 619	0.5	250	297	322	551	118
3. Ischaemic heart disease	57 626	4.0	33 146	4.4	24 480	3.5	1 576	1 610	3 506	2 631	294
4. Cerebrovascular disease	45 088	3.1	23 143	3.0	21 944	3.2	1 473	1 773	1 436	2 283	277
5. Inflammatory heart diseases	5 609	0.4	3 235	0.4	2 374	0.3	349	406	401	412	24
H. Respiratory diseases	**61 965**	**4.3**	**34 062**	**4.5**	**27 903**	**4.0**	**3 050**	**4 058**	**2 958**	**4 791**	**761**
1. COPD	29 371	2.0	16 641	2.2	12 729	1.8	493	595	1 532	1 328	86
2. Asthma	14 861	1.0	7 937	1.0	6 924	1.0	919	1 272	774	1 531	279
I. Digestive diseases	**49 718**	**3.4**	**27 957**	**3.7**	**21 761**	**3.1**	**2 793**	**3 436**	**1 690**	**3 691**	**781**
1. Peptic ulcer disease	4 512	0.3	2 864	0.4	1 648	0.2	140	193	52	133	39
2. Cirrhosis of the liver	14 861	1.0	9 609	1.3	5 252	0.8	514	609	490	1 136	272
3. Appendicitis	413	0.0	241	0.0	172	0.0	23	32	14	37	15
J. Genito-urinary diseases	**14 786**	**1.0**	**8 659**	**1.1**	**6 127**	**0.9**	**1 237**	**1 480**	**589**	**1 037**	**267**
1. Nephritis and nephrosis	8 151	0.6	4 466	0.6	3 685	0.5	633	758	238	484	170
2. Benign prostatic hypertrophy	2 356	0.2	2 356	0.3	0	0.0	122	140	85	193	27
K. Skin diseases	**2 142**	**0.1**	**1 164**	**0.2**	**977**	**0.1**	**326**	**416**	**72**	**168**	**42**
L. Musculoskeletal diseases	**29 240**	**2.0**	**12 749**	**1.7**	**16 491**	**2.4**	**1 009**	**1 118**	**1 896**	**2 129**	**296**
1. Rheumatoid arthritis	4 689	0.3	1 334	0.2	3 355	0.5	124	137	319	523	81
2. Osteoarthritis	16 032	1.1	6 482	0.9	9 550	1.4	608	672	1 028	941	113
M. Congenital anomalies	**28 795**	**2.0**	**14 688**	**1.9**	**14 107**	**2.0**	**1 682**	**2 128**	**704**	**2 297**	**529**
N. Oral conditions	**8 019**	**0.6**	**3 894**	**0.5**	**4 125**	**0.6**	**236**	**276**	**348**	**813**	**145**
1. Dental caries	4 626	0.3	2 346	0.3	2 281	0.3	176	207	179	693	128
2. Periodontal disease	290	0.0	147	0.0	143	0.0	14	16	13	20	3
3. Edentulism	2 986	0.2	1 364	0.2	1 621	0.2	42	47	153	92	12
III. Injuries	**179 709**	**12.4**	**118 240**	**15.5**	**61 469**	**8.9**	**12 898**	**17 828**	**4 603**	**13 742**	**2 239**
A. Unintentional injuries	**130 564**	**9.0**	**83 002**	**10.9**	**47 562**	**6.9**	**9 199**	**10 696**	**3 078**	**7 306**	**1 688**
1. Road traffic accidents	38 061	2.6	26 482	3.5	11 580	1.7	2 738	3 467	1 364	2 737	458
2. Poisonings	7 608	0.5	4 800	0.6	2 809	0.4	482	652	320	73	20
3. Falls	15 666	1.1	9 851	1.3	5 815	0.8	398	462	376	688	128
4. Fires	11 044	0.8	4 740	0.6	6 305	0.9	822	814	98	146	37
5. Drownings	12 040	0.8	8 343	1.1	3 697	0.5	1 626	1 334	115	489	112
6. Other unintentional injuries	46 145	3.2	28 788	3.8	17 357	2.5	3 134	3 966	806	3 173	932
B. Intentional injuries	**49 145**	**3.4**	**35 238**	**4.6**	**13 908**	**2.0**	**3 698**	**7 132**	**1 525**	**6 437**	**551**
1. Self-inflicted injuries	20 172	1.4	11 783	1.5	8 389	1.2	280	453	819	635	98
2. Violence	20 195	1.4	15 863	2.1	4 332	0.6	2 195	2 841	694	5 651	448
3. War	8 376	0.6	7 283	1.0	1 093	0.2	1 223	3 838	0	124	5

Annex Table 15 (continued): DALYs by cause, sex and WHO subregions[a], 2000, Version 2

	EMRO		EURO			SEARO		WPRO	
	B	D	A	B	C	B	D	A	B
Cause[b]	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*	*(000)*
15. Lymphomas/multiple myeloma	129	333	442	167	137	206	1 096	113	401
16. Leukaemia	102	337	328	183	211	241	757	97	1 382
B. Other neoplasms	**34**	**184**	**178**	**38**	**65**	**333**	**269**	**68**	**264**
C. Diabetes mellitus	**405**	**806**	**1 080**	**518**	**681**	**1 072**	**3 333**	**374**	**2 739**
D. Endocrine disorders	**242**	**623**	**641**	**178**	**184**	**426**	**539**	**229**	**1 360**
E. Neuro-psychiatric conditions	**4 139**	**10 290**	**14 761**	**6 963**	**8 884**	**8 456**	**38 877**	**3 758**	**41 087**
1. Unipolar depressive disorders	1 178	3 520	4 091	2 559	2 620	2 831	16 951	1 005	14 473
2. Bipolar affective disorder	348	808	624	469	448	700	2 898	244	3 698
3. Schizophrenia	434	966	598	564	447	1 046	3 567	237	4 340
4. Epilepsy	124	468	247	192	194	335	1 874	66	1 086
5. Alcohol use disorders	15	184	2 137	605	1 693	559	1 404	481	5 402
6. Alzheimer and other dementias	165	387	3 124	443	964	436	1 630	514	1 680
7. Parkinson disease	24	168	285	64	79	53	184	105	257
8. Multiple sclerosis	32	70	157	60	86	63	267	30	344
9. Drug use disorders	476	599	775	178	450	126	855	251	342
10. Post-traumatic stress disorder	77	180	208	124	130	178	691	81	837
11. Obsessive-compulsive disorder	182	327	258	269	283	169	806	63	749
12. Panic disorder	171	397	325	242	236	360	1 446	129	1 686
13. Insomnia (primary)	33	151	345	116	158	114	824	129	574
14. Migraine	145	396	752	255	239	340	1 665	155	1 800
F. Sense organ diseases	**848**	**2 383**	**2 218**	**1 007**	**1 815**	**2 911**	**10 304**	**794**	**7 656**
1. Glaucoma	66	137	43	37	102	33	69	7	211
2. Cataracts	169	673	19	85	236	581	2 876	17	1 265
4. Hearing loss, adult onset	553	1 420	1 844	756	1 295	2 138	6 737	650	5 277
G. Cardiovascular diseases	**2 868**	**8 589**	**9 219**	**8 365**	**16 246**	**5 980**	**34 519**	**2 365**	**27 818**
1. Rheumatic heart disease	68	493	79	135	218	224	2 309	20	1 590
2. Hypertensive heart disease	285	519	316	505	346	577	846	40	2 202
3. Ischaemic heart disease	1 474	3 703	3 885	3 647	8 319	2 203	17 483	765	6 532
4. Cerebrovascular disease	477	1 829	2 585	2 458	5 273	1 928	7 762	1 085	14 450
5. Inflammatory heart diseases	78	375	280	319	606	254	1 296	78	732
H. Respiratory diseases	**661**	**3 050**	**3 196**	**1 682**	**2 131**	**2 356**	**13 747**	**1 049**	**18 476**
1. COPD	172	799	1 772	726	1 186	872	6 273	375	13 162
2. Asthma	300	966	712	369	288	543	3 572	377	2 960
I. Digestive diseases	**533**	**3 547**	**2 453**	**2 006**	**2 689**	**2 462**	**12 584**	**703**	**10 349**
1. Peptic ulcer disease	37	225	134	151	218	250	1 677	35	1 227
2. Cirrhosis of the liver	131	946	929	678	1 020	827	4 128	201	2 980
3. Appendicitis	7	19	16	9	21	26	94	5	94
J. Genito-urinary diseases	**340**	**1 079**	**547**	**559**	**721**	**816**	**2 678**	**222**	**3 213**
1. Nephritis and nephrosis	118	733	196	271	220	478	1 836	97	1 920
2. Benign prostatic hypertrophy	65	129	120	62	74	112	509	49	669
K. Skin diseases	**21**	**141**	**88**	**36**	**133**	**242**	**306**	**19**	**131**
L. Musculoskeletal diseases	**471**	**1 169**	**2 430**	**1 450**	**1 899**	**1 529**	**4 969**	**970**	**7 904**
1. Rheumatoid arthritis	96	213	420	269	360	125	837	141	1 043
2. Osteoarthritis	220	560	1 475	918	1 206	905	2 412	639	4 335
M. Congenital anomalies	**981**	**3 289**	**591**	**706**	**709**	**1 272**	**7 660**	**224**	**6 022**
N. Oral conditions	**407**	**638**	**353**	**388**	**347**	**648**	**1 677**	**140**	**1 602**
1. Dental caries	197	358	200	191	165	247	1 043	76	766
2. Periodontal disease	5	18	16	10	13	15	96	6	45
3. Edentulism	203	254	133	185	168	380	503	58	757
III. Injuries	**3 928**	**12 091**	**4 317**	**4 477**	**12 421**	**9 539**	**44 867**	**1 665**	**35 094**
A. Unintentional injuries	**3 275**	**9 370**	**3 182**	**3 384**	**7 856**	**7 307**	**36 587**	**1 003**	**26 633**
1. Road traffic accidents	1 301	2 386	1 288	653	1 672	4 100	7 214	329	8 355
2. Poisonings	66	382	132	133	1 930	184	1 640	43	1 551
3. Falls	348	1 127	639	547	868	724	4 883	185	4 291
4. Fires	242	1 047	64	166	691	330	6 006	27	555
5. Drownings	156	712	79	183	630	354	2 215	67	3 969
6. Other unintentional injuries	1 161	3 717	980	1 703	2 064	1 615	14 630	352	7 912
B. Intentional injuries	**653**	**2 721**	**1 135**	**1 092**	**4 565**	**2 232**	**8 280**	**662**	**8 460**
1. Self-inflicted injuries	287	786	973	511	2 071	914	5 741	625	5 978
2. Violence	318	672	148	318	1 975	559	1 968	35	2 376
3. War	39	1 201	14	243	491	756	360	0	82

a See list of Member States by WHO Region and mortality stratum (Annex Table 1).

b Estimates for specific causes may not sum to broader cause groupings due to omission of residual categories.

c Does not include liver cancer and cirrhosis deaths resulting from chronic hepatitis virus infection.

Annex Table 16: DALYs per 100,000 populataion by cause, sex and WHO subregion, 2000, Version 2

Sex / WHO subregion[b]	Total DALYs per 100,000 population								
	Total	0-4	5-14	15-29	30-44	45-59	60-69	70-79	80+
Total persons	24047	73029	8852	17973	17868	23450	32285	36633	34562
AFRO D	49117	151185	15214	29405	36684	39481	47616	55547	53693
AFRO E	58863	151044	15692	45309	65906	48865	50025	56992	54650
AMRO A	14233	10354	3934	13617	11899	16651	23714	29408	28365
AMRO B	18663	37488	6900	17458	15926	21583	29938	32679	34940
AMRO D	23936	57896	9653	19634	20443	24712	32622	40027	45072
EMRO B	16339	36083	6308	12832	13343	23169	33228	40800	44578
EMRO D	32280	104459	10837	18058	20142	30170	41656	49761	49456
EURO A	12948	8161	3286	10392	9262	13464	22339	27211	28600
EURO B	17849	38038	5563	12690	14490	21678	32007	37560	38867
EURO C	24405	25582	5940	18254	23077	32145	39221	41334	39278
SEARO B	21075	45300	7647	16341	18061	27930	38266	41091	40309
SEARO D	28665	83379	11378	20396	20542	30372	42096	47354	38477
WPRO A	10606	8280	3556	8270	7430	11348	16445	20815	23215
WPRO B	15839	41547	5640	11553	11268	18441	28708	36350	39679
Males	24991	73626	8845	17672	19441	26684	36251	39751	37620
AFRO D	50114	157227	15334	25813	39055	44733	50324	56019	53566
AFRO E	59966	158674	15766	38951	69830	57466	54425	58535	55580
AMRO A	15253	10963	4252	14561	12857	18518	26457	33683	33147
AMRO B	21265	39756	7454	21286	18701	25269	33827	36290	37620
AMRO D	25809	61204	9875	21253	23333	27839	34751	42101	48286
EMRO B	17448	37960	6689	13871	13966	25282	36423	43567	45182
EMRO D	32379	105008	10933	16603	20808	32848	43610	49236	48810
EURO A	13901	8603	3375	10952	9977	15436	25983	32156	32939
EURO B	19692	40988	6062	13360	16484	26525	38877	41631	40931
EURO C	30859	28763	7269	23530	31453	44181	53934	52757	42179
SEARO B	22276	49039	7690	17066	19715	29808	40838	42711	41316
SEARO D	27950	80371	10556	18190	21289	33129	44593	47182	38351
WPRO A	11584	8641	3630	8438	8040	12861	20198	25094	28187
WPRO B	16775	40438	5902	12442	12403	20982	32296	37875	40803
Females	23088	72398	8860	18289	16240	20202	28656	34258	32938
AFRO D	48119	145002	15092	33053	34327	34472	45238	55159	53784
AFRO E	57775	143318	15617	51661	62006	40841	46300	55804	54068
AMRO A	13240	9714	3600	12640	10926	14825	21226	26130	25960
AMRO B	16113	35129	6327	13599	13258	18143	26568	29892	33248
AMRO D	22078	54460	9424	17998	17693	21778	30685	38274	42744
EMRO B	15143	34105	5908	11745	12637	20587	29867	38202	44067
EMRO D	32178	103883	10735	19581	19450	27459	39837	50218	50038
EURO A	12035	7694	3193	9806	8529	11506	19048	23736	26651
EURO B	16041	34961	5042	11993	12486	17022	26203	34783	37835
EURO C	18704	22250	4552	12840	14876	21728	29127	36126	38479
SEARO B	19870	41428	7602	15602	16379	26097	35987	39744	39603
SEARO D	29423	86571	12257	22785	19728	27518	39735	47508	38579
WPRO A	9663	7899	3478	8096	6811	9843	12974	17597	20845
WPRO B	14857	42767	5354	10610	10079	15750	25081	35083	39060